Consumer Markets for Pesticides and Fertilizers:

U.S. Market Analysis and Opportunities

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U.S. Market Analysis and Opportunities

This report and the survey on which it is based are the work effort of Kline & Company's Specialty Pesticides Practice, under the direction of:

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FOREWORD

Consumer Markets for Pesticides and Fertilizers: U.S. Market Analysis and Opportunities is the seventeenth edition of Kline's comprehensive survey of this industry. This service provides biennial business information on this highly competitive and changing industry. It presents data on the U.S. consumer market for pesticides, fertilizers, and related products in two volumes. *Section One: Business Analysis* provides information on market size, brand shares, advertising expenditures, distribution patterns, and forecasts for each of 11 product categories and profiles of roughly 40 major suppliers and leading distributors in the industry.

Section Two: Consumer/Retailer Profiles presents data on the buying and selling practices for 11 product categories based on 1,552 consumer interviews. It includes tabulated results of all responses to these structured surveys.

Your comments and suggestions for further improvements are welcomed and encouraged. As a convenience, we have provided a comment sheet in Appendix 7 that we hope you will return to us so that we may incorporate any improvements you might suggest into future editions. We also invite all subscribers to notify us of any errors so that we may correct them in future editions of this survey. If we may be of any assistance in using this document or provide further insights into our methodology or findings, our staff would be pleased to help.

For more focused analyses, Kline & Company can also provide assistance through our custom, strategic consulting capabilities. Having served the agribusiness and related industries since the 1960s, Kline has undertaken numerous consulting assignments that have involved growth forecasts, competitive intelligence, market and brand analyses, and consumer products market research. In addition to these analyses, Kline has completed various other engagements for our industry-leading clients, including:

- Acquisition screening and assessments
- New business development
- Industry/category/brand assessments
- Competitive intelligence
- Strategic analyses

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1. INTRODUCTION

This report analyzes the U.S. market for consumer pesticides and fertilizers in 2011. The study presents information on products and companies in two sections. Section One is organized into three major subsections. The first provides an industry overview, summarizing the main features and trends of the consumer market for pesticides, fertilizers, and related products. The second presents market information for 11 product categories, grouped into five chapters. The third profiles principal suppliers and distributors.

Section Two presents data compiled from mail surveys of consumers, grouped into six major subsections. The first provides a brief summary of major findings and a guide to the organization of the rest of the volume. The second through sixth sections present survey data concerning lawn maintenance practices, fertilizers, herbicides, insecticides, and other pesticides.

SCOPE

This report covers pesticides and fertilizers used on lawns, gardens, and houseplants and in households by consumers. Insect repellents are included with insecticides.

The study places primary emphasis on products sold through domestic retail outlets. Data are given in net marketers' dollars, defined as the price received by the marketer less any marketing expenses, before distributor and retail markups. Any company that sells a branded product is considered a marketer even if it has no manufacturing facilities of its own. Manufacturers that do not market to consumers, but make products only under private label are excluded from this survey for purposes of market share determination, although some are profiled with other consumer suppliers.

Products specifically formulated and promoted for sale to and application by agricultural or professional end users are also excluded from the report.

SOURCES AND METHODS

This study is based on data gathered through interviews with representatives of suppliers, distributors, trade associations and trade journals, and structured surveys of consumers and retailers conducted from January 2012 through May 2012. The interviews were supplemented with information obtained from supplier literature, annual reports, advertisements, and other promotional materials.

ACCURACY

The information presented in this study is believed to be sufficiently accurate for preliminary planning needs. However, more detailed studies of individual products or companies should be conducted before substantial financial commitments are made.

Market sizes and brand shares were determined by analyses of sales and other data obtained through interviews. The accuracy of the information varies with the cooperation of the respondents and their knowledge of different product categories. In general, the larger the market is, the more accurate the information will be. Data on market size are believed to be within 10% of true value for product categories with sales of $50 million or more, and within 25% of true value for smaller product categories. The accuracy of data on brand share varies accordingly.

TRADEMARKS

Many products are referred to by their trademarked names in this study; the name is written in title capitals, and the owner of the trademark is usually identified in the accompanying text or table.

ROUNDING

Percentages in some tables may not total 100% due to rounding.

APPENDICES

A list of marketers ranked by their domestic sales of branded consumer pesticides and fertilizers is provided in Appendix 1. A list of suppliers ranked according to their traceable media expenditures (TME) for these products is given in Appendix 2. Suppliers are listed in alphabetical order with associated brand names in Appendix 3. Brand names are listed in alphabetical order with associated suppliers in Appendix 4.

Regional categories used to present data are defined in Appendix 5. Appendix 6 consists of a table summarizing sales by supplier, fertilizer, and pesticide category.

Kline & Company welcomes opinions and suggestions concerning this study from clients. A comment sheet is provided for this purpose in Appendix 7.

2. INDUSTRY OVERVIEW

MARKET DESCRIPTION

Suppliers of consumer pesticides and fertilizers can be classified into four broad categories:

- Basic manufacturers of raw materials for fertilizers and active ingredients for pesticides that also formulate and market finished products under their own brand names. Scotts and Bayer, for example, fall within this group.
- Formulators that purchase raw materials, process and package them, and market the finished products. This category encompasses a majority of pesticide and fertilizer suppliers, such as Hartz Mountain, S.C. Johnson, Lebanon Seaboard, and Spectrum Brands.
- Reformulators that buy processed material or formulated products that they package and sell.
- Companies owning neither manufacturing nor packaging facilities that buy finished products from other suppliers for sale under their own trademarks. Retailers with private-label brands make up the bulk of this category.

There is considerable overlap among these classifications, particularly for companies with broad product lines. It is, for example, common practice to subcontract production of aerosols to manufacturers that specialize in this product form. Scotts makes most of its consumer fertilizers in-house, but uses other firms to manufacture Miracle-Gro fertilizers.

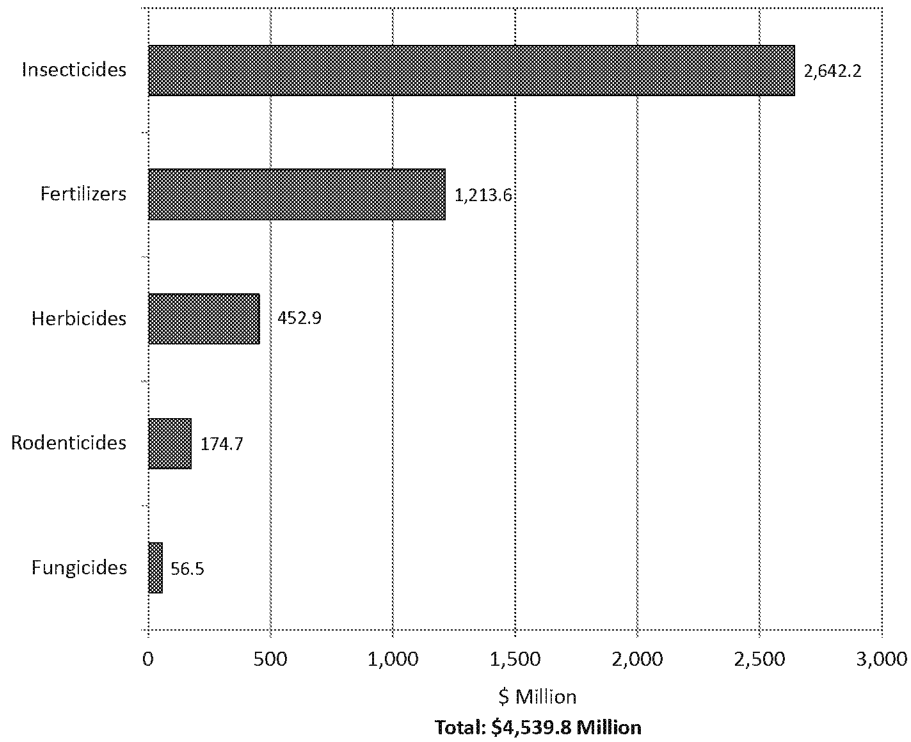
SALES OVERVIEW

Sales by product category

Total U.S. sales of products covered by this study are estimated at $4,539.8 million in 2011 compared with $4,493.3 million in 2009. Total sales of branded consumer products have increased a net 1.0%, or an average annual increase of 0.5%, representing growth across all segments. This growth overall reflects the sluggish nature of the current economy and has the potential for substantial growth once the economy turns around.

Insecticides account for approximately 58% of sales for the year, and pesticides collectively constitute close to 73%. Fertilizers represent nearly 27% of the total in 2011.

Figure 2-1: Estimated U.S. Sales of Consumer Pesticides and Fertilizers, 2011



Product category sales changed at significantly different rates during the period as a result of the influence of specific weather conditions, new product introductions, increasing concerns over the West Nile virus, significant fertilizer price increases, and various other factors. A comparison of sales by product category from 2009 to 2011.

Sales by region

Among the regions, the South accounts for the largest percentage of sales of pesticides and fertilizers in 2011, followed by the North Central.

Table 2-1: Sales of U.S. Consumer Pesticides and Fertilizers by Region, 2011

Region	$ Million	% Of total
South	1,727.8	38.1
North Central	1,140.2	25.1
Northeast	904.7	19.9
West	767.0	16.9
Total	**4,539.8-a**	**100.0**

a- Does not add due to rounding.

Table 2-2: Estimated U.S. Sales of Consumer Pesticides and Fertilizers by Product Category, 2011

Product category	$ Million	% Of total
INSECTICIDES-a		
Pet	1,217.5	26.8
Outdoor	582.4	12.8
Household	494.4	10.9
Insect repellents	347.9	7.7
Total	2,642.2	58.2
FERTILIZERS-b		
Lawn	829.1	18.3
Garden	321.7	7.1
Houseplant	62.8	1.4
Total	1,213.6	26.7
HERBICIDES		
Garden and nonselective	292.3	6.4
Lawn	160.6	3.5
Total	452.9	10.0
RODENTICIDES	174.7	3.8
FUNGICIDES	56.5	1.2
TOTAL	**4,539.8**	**100.0**

a- Includes insecticide-herbicide and insecticide-fungicide combination products.
b- Includes fertilizer-pesticide combination products.

Sales by application

Consumer pesticides, fertilizers, and related products can be categorized into seven major groups based on their type of use. Pet insecticides and nonselective herbicides are broken out separately because both of these product categories cut across or fall outside of other application groups. Pet insecticides include some products for use in the home and yard, as well as on animals. Nonselective herbicides are used in gardens, on lawns, and as edging and maintenance products on and around pavement and fences.

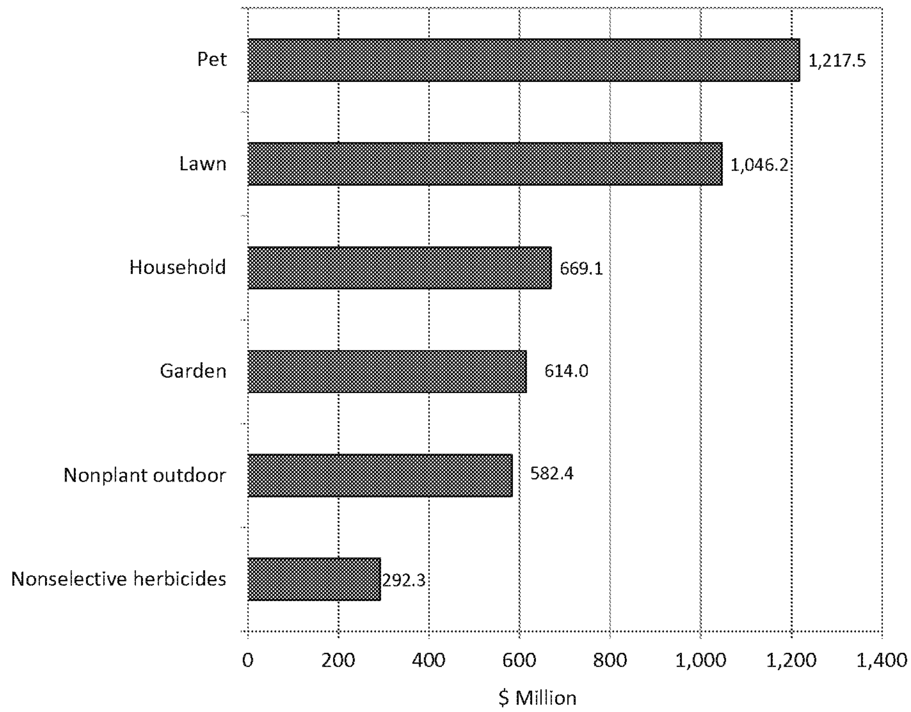
Lawn products, pet insecticides, and household products are the largest categories, together accounting for approximately 65% of total sales in 2011. Garden products rank fourth.

Table 2-3: Estimated U.S. Sales of Consumer Pesticides and Fertilizers by Product Category, 2009 to 2011

	$ Million		
Product	**2009**	**2011**	**Growth, %**
INSECTICIDES-a			
Pet	1,042.1	1,217.5	16.8
Outdoor	554.9	582.4	5.0
Household	544.3	494.4	(9.2)
Insect repellents	325.6	347.9	0.3
Total	2,466.9	2,642.2	7.1
FERTILIZERS-b			
Lawn	955.1	829.1	(13.1)
Garden	327.1	321.7	(1.7)
Houseplant	66.9	62.8	(6.1)
Total	1,349.1	1,213.6	(10.0
HERBICIDES			
Garden and nonselective	321.1	292.3	(8.9)
Lawn	152.4	160.6	5.4
Total	473.5	452.9	(4.4)
RODENTICIDES	153.3	174.7	13.9
FUNGICIDES	50.5	56.5	11.9
TOTAL	**4,493.3**	**4,539.9**	**1.0**

a- Includes insecticide-herbicide and insecticide-fungicide combination products.
b- Includes fertilizer-pesticide combination products.

Figure 2-2: Estimated U.S. Sales of Consumer Pesticides and Fertilizers by Application, 2011



Total: $4,539.8 Million

Active ingredients

Total consumption of active ingredients in pesticides and fertilizer-pesticide combination products is estimated at 43.4 million lb in 2011. Herbicides account for the majority of this consumption, in part because fertilizer-herbicide products are far more widely used than fertilizer-insecticide or fertilizer-fungicide products.

Private-label activity

The market share of retailer private-label products is steady to lower over the past several years because: (1) these products offer much less of a price advantage to consumers than they once did; and (2) several large retail chains have eliminated or reduced their use of private-label goods. In addition, due to the highly competitive market, suppliers have had to lower prices through rebate programs and the absorption of inflation-based increases.

With the exception of Kmart, Walmart, and Ace Hardware, concerns about pesticides and related liability risks have also reduced retail chain interest in providing these products under their own labels. In the lawn fertilizer category, however, retailer interest in private-label products remains high because mass-merchandise stores, lawn and garden centers, and home improvement centers continue to attract the majority of consumers. Retailers are providing these products to compete against the national brands as a somewhat easy method to increase profit margins.

Table 2-4: Estimated U.S. Sales of Consumer Pesticides and Fertilizers by Application, 2011		
Application	**$ Million**	**% Of total**
LAWN		
Fertilizers	829.1	18.3
Insecticides	262.1	5.8
Herbicides	160.6	3.5
Fungicides	28.2	0.6
Total	1,280.0	28.2
PET INSECTICIDES	1,217.5	26.8
HOUSEHOLD		
Insecticides	494.4	10.9
Rodenticides-a	174.7	3.8
Houseplant fertilizers	62.8	1.4
Total	731.9	16.1
GARDEN		
Fertilizers	321.7	7.1
Insecticides	104.8	2.3
Herbicides	69.7	1.5
Fungicides	28.3	0.6
Total	524.5	11.6
NONPLANT OUTDOOR		
Insecticides	215.5	4.7
Insect repellents	347.9	7.7
Total	563.4	12.4
NONSELECTIVE HERBICIDES	222.5	4.9
TOTAL	**4,539.8**	**100.0**

a- Includes some outdoor applications.

Table 2-5: Estimated U.S. Consumption of Toxicants in Branded Consumer Pesticides and Fertilizers by Major Product Category, 2011

Active ingredient	Thousand lb	% Of category	% Of total
HERBICIDES			
2,4-D	8,208	30.2	18.9
Glyphosate	5,070	18.6	11.7
MCPP	2,967	10.9	6.8
Pendimethalin	2,200	8.1	5.1
Dicamba	1,412	5.2	3.3
MCPA	1,318	4.8	3.0
Pelargonic acid	1,041	3.8	2.4
Trifluralin	684	2.5	1.6
Chlorfuneral	300	1.1	0.7
Atrazine	300	1.1	0.7
Quinclorac	250	0.9	0.6
All other-a	3,459	12.7	8.0
Total	27,209	100.0-b	62.7-b
INSECTICIDES-c			
Carbaryl	2,189	15.8	5.0
Acephate	1,810	13.1	4.2
Permethrin and other pyrethroids	1,624	11.7	3.7
Malathion	1,170	8.5	2.7
Boric acid	1,035	7.5	2.4
Bifenthrin	747	5.4	1.7
All other-a	3,459	30.0	8.0
Total	13,841	100.0	31.9-b
FUNGICIDES			
Chlorothalonil	902	39.1	2.1
Thiophanate-methyl	239	10.4	0.6
Triforine	203	8.8	0.5
Neem oil	151	6.6	0.3
Myclobutanil	137	5.9	0.3
Mancozeb	74	3.2	0.2
Tebuconazole	21	0.9	d
All other-a	577	25.0	1.3
Total	2,304	100.0	1.3

(Continued)

Table 2-5: Estimated U.S. Consumption of Toxicants in Branded Consumer Pesticides and Fertilizers by Major Product Category, 2011

Active ingredient	Thousand lb	% Of category	% Of total
RODENTICIDES			
Brodifacoum	1	8.1	d
Chlorophacinone	d	1.3	d
Bromethalin	d	0.3	d
Chlorophacinone	d	0.3	d
Difethialone	d	0.2	d
All other-e	14	89.8	d
Total	15	100.0	d
TOTAL	**43,369**		**100.0-b**

a- Includes a large variety of other active ingredients used in small amounts.
b- Does not add due to rounding.
c- Does not include approximately 9.2 million lb of DEET and 4.5 million lb of other insect repellent ingredients, which are repellents rather than true pesticides.
d- Minor.
e- Includes zinc phosphide and others.

COMPETITION

The consumer market for pesticides and fertilizers is temptingly large in appearance and seems to present few barriers to entry in comparison with the agricultural and professional markets. In the past few years, it has proven particularly attractive to basic manufacturers of pesticides and to agricultural cooperatives, both of which are casting about for supplementary revenue as their core businesses have come under pressure. Monsanto and Dow AgroSciences are highly successful examples of basic producers that developed a proprietary active ingredient for consumer use. Their experience has encouraged other large chemical companies to look for opportunities of the same kind.

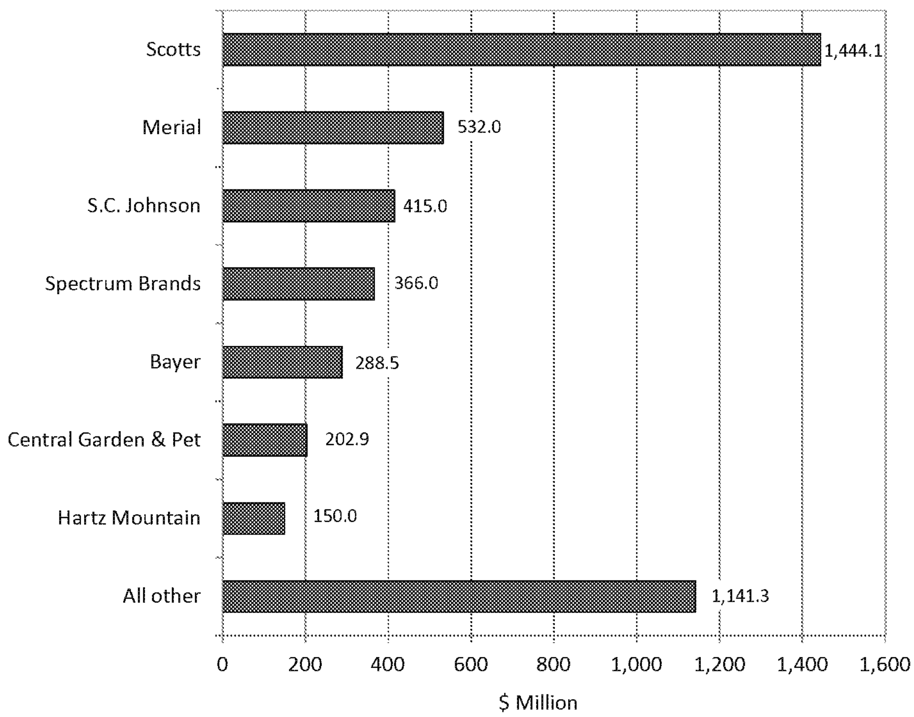
However, the appeal of the consumer market is rather deceptive. It is well populated by existing suppliers, and the leading marketers are formidable. The 12 largest suppliers of consumer pesticides and fertilizers represent only a small percent of the companies active in the industry, but they accounted for approximately 85% of total sales in 2011, down slightly from 2009. The top three alone account for over one-half of total sales. In most product categories, the dominant company holds from one-quarter to two-thirds of the market; and there is a strong second tier of regional suppliers. The level of competition is generally high and profit margins are comparatively thin because of this. Margins are also slim because the costs of distribution and marketing are high.

The leading company in the consumer market for pesticides and fertilizers is Scotts, with sales of roughly $1,444 million, or 31.8% of the total. Merial is the second-leading company, with a 9.1% share of market, followed by S.C. Johnson with 9.1% and Spectrum Brands with an 8.1% share. Bayer, Central Garden & Pet, and Hartz Mountain are next on the list of leading companies, largely due to the strength of their flea and tick control products in the pet insecticides category.

Product differentiation is also difficult in the consumer market. Active ingredients and formulations have rarely been proprietary, but this situation is changing as basic producers with new molecules are putting the consumer market on a faster track than it had been on historically. Many products, like 2,4-D, are off patent and available to any formulator; and others have been licensed by the basic manufacturer to multiple suppliers in the consumer market. As a result, rather than focus on the products themselves, sellers of these products have come to focus more and more on:

- Brand recognition and image
- Delivery systems, such as hose-end applicators and shaker canisters
- Distribution and retail placement

Figure 2-3: Estimated U.S. Sales of Branded Consumer Pesticides and Fertilizers by Major Marketer, 2011



Total: $4,539.8 Million

Table 2-6: Estimated U.S. Sales of Branded Consumer Pesticides and Fertilizers by Major Marketer, 2011

Company	$ Million	% Of total
Scotts	1,444.1	31.8
Merial	532.0	11.7
S.C. Johnson	415.0	9.1
Spectrum Brands	366.0	8.1
Bayer	288.5	6.4
Central Garden & Pet	202.9	4.5
Hartz Mountain	150.0	3.3
Novartis	116.0	2.6
Reckitt Benckiser	112.0	2.5
Lebanon Seaboard	86.3	1.9
Pfizer	85.0	1.9
Woodstream	73.0	1.6
Avon	64.5	1.4
Voluntary Purchasing Group	44.9	1.0
The Andersons	40.6	0.9
All other-a	519.1	11.4
Total	**4,539.8**	**100.0**

a- Includes PBI/Gordon, Motomco, Senoret Chemical, Lamplight Farms, Easy Gardener Products, Sergeant's Pet Care, Bonide, and Dial, among others.

Distribution has become an even greater hurdle for new entrants. Retail chains have been critical to success in the consumer market for some time because they control supplier access to end users. In the last several years, the market share controlled by mass merchandisers and home improvement centers has been growing steadily; and, at the same time, a number of major chains have begun to cut back on the number of brands of pesticides and fertilizers that they carry. These trends favor existing, larger suppliers and make it difficult for new entrants to gain a foothold.

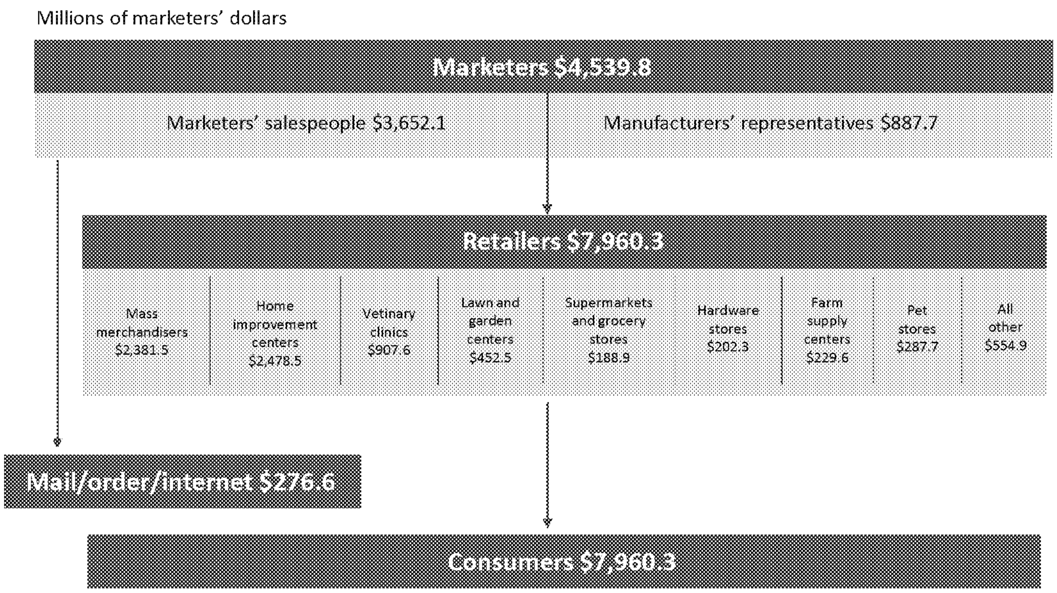
These factors are contributing to the continuing trend of using acquisitions to enter the market or to increase market share, and joint ventures or partnerships to increase product line depth or market reach. Examples include Scott's acquisition of Green Light, as well as Central Garden & Pet's purchase of Zoecon, Pennington Seed, Lilly Miller brands, Farman, and Gulfstream Home and Garden.

DISTRIBUTION

Marketers' own sales representatives account for approximately 80% of total sales, and manufacturers' representatives account for the remaining 20%. Approximately 75% of sales are made directly to retail accounts, 22% to distributors and brokers, and 3.0% through internet and mail-order catalogs.

Retail outlets such as Target, Walmart, Home Depot, and others demand to deal directly with manufacturers of consumer pesticides and fertilizers. This demand is not unreasonable, however, based on the volume these retailers represent to manufacturers. The growing penetration of the retail market these outlets represent has moved some manufacturers, such as Scotts and Spectrum Brands, to deal one-on-one with the retailers either through the establishment of direct sales forces or a more concentrated effort in selling direct versus selling through distributors.

Figure 2-4: Estimated Distribution of Pesticides and Fertilizers, 2011



Home improvement stores have passed mass merchandise stores as the leading retail outlet for these products, accounting for over 31% of sales in 2011, while mass merchandise stores now account for just under 30% in 2011. Veterinarians, with their sale of flea and tick medications, rank third with roughly 11.4%, followed by lawn and garden centers with 5.7% of the total.

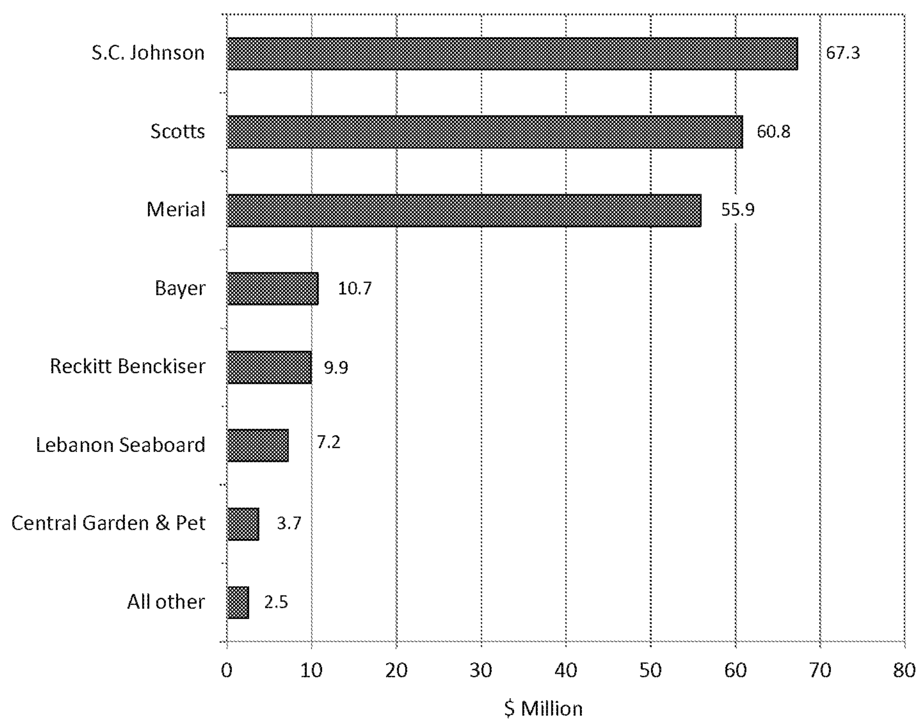
ADVERTISING

Traceable media expenditures (TME) for consumer pesticides, fertilizers, and related products are approximately $218 million for 2011. The top three marketers account for almost 85% of this total.

Table 2-7: Estimated U.S. Distribution of Consumer Pesticides and Fertilizers, 2011		
Retail outlet	**$ Million**	**% Of total**
Home improvement centers	2,478.5	31.1
Mass merchandise stores	2,381.5	29.9
Veterinarians	907.6	11.4
Lawn and garden centers	452.5	5.7
Pet superstores	287.8	3.6
Internet/mail order	276.6	3.5
Farm supply stores	229.6	2.9
Hardware stores	202.3	2.4
Supermarkets and grocery stores	188.9	2.4
All other	554.9	7.0
Total	**7,960.3**	**100.0-a**

a- Does not add due to rounding.

Figure 2-5: U.S. TME for Branded Consumer Pesticides and Fertilizers by Leading Marketer, 2011



Total: $217.6 Million

Table 2-8: U.S. TME for Branded Consumer Pesticides and Fertilizers by Leading Marketer, 2011		
Company	**$ Thousand**	**% Of total**
S.C. Johnson	67,316	30.9
The Scotts Miracle-Gro Company	60,804	27.9
Merial Ltd.	55,924	26.0
Bayer AG	10,732	4.9
Reckitt Benckiser	9,927	4.6
Lebanon Seaboard Corporation	7,229	3.3
Central Garden & Pet Company	3,654	1.7
Spectrum Brands	761	0.3
Bonide Products Inc.	748	0.3
Bengal Products Inc.	303	0.1
Summit Chemical Company	126	0.1
All other-a	122	0.1
Total	**217,646**	**100.0-b**

a- Includes Pfizer, Espoma, Voluntary Purchasing Group, and others.
b- Does not add due to rounding.

S.C. Johnson, the leading advertiser, accounts for nearly 31% of advertising expenditures in 2011. This information is summarized from data provided by KANTAR Media, in addition to information gathered in Kline & Company interviews. KANTAR Media information is a standard industry source for consumer products of all kinds and is provided as a guide to comparative level of activity rather than as an exact measure of total advertising and promotional spending by marketers.

TME represents the cost to marketers of purchasing media time and space. It does not include the costs involved in the actual production of advertisements, which can frequently be twice those for media. It should also be noted that the KANTAR data focuses primarily on larger advertisers and is not comprehensive in its coverage. Some expenditures for direct advertising to consumers, particularly those for local media, therefore go unreported.

GOVERNMENT REGULATIONS

All segments of the pesticide industry are focused on the Food Quality Protection Act (FQPA). This legislation was passed in 1996 to repeal the outdated Delaney Clause and to make regulatory decisions based on the risk of pesticides from all possible routes of exposure, including dietary, drinking water, and nondietary sources, such as dermal exposure from residential uses. The FQPA also takes into consideration the possible differences in effects to infants and children by using additional safety factors above the conservative safety factors that had been used prior to the law. Finally, the law requires the U.S. Environmental Protection Agency (EPA) to take into consideration aggregate risk from multiple uses of the same product and cumulative risk from multiple chemicals with a similar mode of toxicity.

OUTLOOK

Gardening has long been a favorite leisure time activity of the age 45 to 65 group of home-owning consumers. Demographic trends in the United States favor gardening-related products for the next 10 to 20 years as the "baby boomer" generation continues to pursue yard and garden leisure-time activities.

Opportunities for significant individual growth in sales are greatest for marketers that can either: (1) identify new consumer applications for existing products; or (2) commercialize new active ingredients in consumer markets. Basic manufacturers with a portfolio of proprietary active ingredients and a productive discovery program to draw on are in the best position to do this. For example, the commercialization of four new active ingredients as pet insecticides in the late 1990s has revolutionized the flea and tick market and driven enormous growth.

Changes in distribution tend to offer larger marketers a means of increasing sales. Control of distribution has become a critical element in supplier success. Retail chains, which make centralized purchasing decisions, are important not only in mass-merchandise outlets and home improvement centers, but also in some lawn and garden centers and hardware stores. Placement in mass merchandise outlets and home improvement centers is particularly important because consumers have shifted a major percentage of their purchases to these stores, even in rural areas. Smaller or regional marketers tend to be at a disadvantage with regard to this trend.

Convenience is a top priority for consumers. Convenience in retail location, breadth of product offering, and product use all contribute to market share. Consumers surveyed for this study consistently cite ease of application and convenient packaging as important influences on product selection. Suppliers have applied this concept by providing more consumer-friendly packaging, redesigned to provide bolder, crisper graphics with more informative labeling. Those who market ready-to-use (RTU) products of all kinds can attest to the importance consumers place on convenience, a premium for which many are willing to pay. Pesticides in pre-measured packages are also seen as convenient and safe, eliminating exposure to the pesticide and measuring errors, and solving the problem of container disposal.

Marketers of products that address serious health or safety hazards such as Lyme disease, the West Nile virus, and fire ants have seen growth in these segments.

Organic and biological products have grown in market share among suppliers. As more environmentally safe alternative products become available, consumer purchase behavior has increasingly coincided with publicly expressed "pro-environment" consumer attitudes. Product safety to children and pets is an important factor in many consumer purchase decisions. As suppliers provide products of comparable price and efficacy to conventional pesticides and fertilizers, and provide the consumer with the informational support needed to understand the benefits of these products, sales of these products are growing.

Lastly, marketers of consumer pesticides may find the low-end professional market an area of expansion. There is evidence that less sophisticated professional end users are crossing over into the consumer marketplace to obtain products, largely because costs associated with getting and maintaining the licenses and certification necessary for some professional products or for hiring individuals with such certification are rising noticeably. Professional end-user segments affected by this trend include landscapers, educational facilities, cemeteries, and parks.

KLINE'S FUTUREVIEW SCENARIO FORECAST MODEL FOR THE U.S. CONSUMER PESTICIDES AND FERTILIZERS MARKET

METHODOLOGY

Kline's approach to projecting future growth of the U.S. consumer pesticide and fertilizer market was threefold:

- Aggregated market segments into two major categories:
  - **All outdoor products**
  - Lawn and garden fertilizers
  - Herbicides
  - Outdoor insecticides
  - Insect repellents
  - Fungicides
  - **All household and pet products**
  - Household insecticides
  - Houseplant fertilizers
  - Pet insecticides
  - Rodenticides

- Examined economic indicators that might have predicted the past growth of the two major categories—outdoor products and household/pet products—and applied a statistical trend analysis to the historical market data.

- Examined statistical trend forecast growth rates on a segment-by-segment basis, looking at five different growth periods to determine whether historical growth rates can be applied to the next t-year period, and if so, how should they be applied?

- In prior reports, we have determined that U.S. disposable personal income and U.S. housing starts are predictors of the growth of these categories.
  - Disposable income has a predictor score of 0.97 out of a possible 1.00 for predicting total outdoor products spending.[1]
  - Housing start data has a predictor score of 0.82 out of 1.00 for predicting household and pet product segment spending.[2]

[1] The predictor score is essentially the R square of the model. Other vital metrics are a T value of 15.82 and an F value of 250.28 that are both statistically significant.
[2] Other vital metrics are a T value of 5.26 and an F value of 27.66 that are both statistically significant.

Economists are generally predicting that growth in disposable income will slowly begin to rebound versus the last two years and continue on a slow pace until 2014, mainly due to a slow jobs recovery.

Housing starts, our other predictor, are forecast to be at a low level through 2013, and begin to rebound in 2013, with double-digit growth late in the forecast period.

ECONOMIC INDICATORS

The U.S. economy has clearly been in a period of decline followed by flattening since 2008. Kline's research, as well as general economic indicators, suggest that the current rather flat economy will begin the rebound in the 2013 to 2016 period, years three, four, and five of this forecast period.

As a cautionary note, this pattern of a two-year flat period and a three-year growth period is exactly the same as the expert forecasters were predicting at the time our 2010 report was published. So while we are basing our likely case forecast on this set of assumptions, our downside case reflects continuing the pattern that actually occurred over the past four years.

The current data published by the U.S. Congressional Budget Office (CBO) reflects this forecast, which shows sharp growth in the 2013 to 2016 period.

Table 2-9: U.S. Growth Rates and Unemployment Percentages by Period for Selected Economic Indicators, 2010 to 2016

	% Projected annual growth in each period		
	2010-2011	**2012-2013**	**2013-2016**
Wages growth	3.8	4.2	5.2
Real GDP growth	2.7	3.1	3.4
GDP price index growth	0.9	1.4	1.8
Note: projected unemployment %	9.5	8.0	5.9

SOURCE: Congressional Budget Office Report, United States Congress.

Early in the recession, Kline surveyed 1,000 suburban homeowners to determine how they had reacted to the recession up to that point, and how they would determine when the recession had ended. In general, housing-related and job-related indicators, both national and the respondent's own experience, would drive their confidence level in the economy.

Table 2-10: What Indicators Will Homeowners Use to Determine if the Recession is Over

Indicator	%
Consumer spending increases	65
National employment data improves	62
Housing prices start to rise	54
Stock market rises to certain level	46
Growth in US GDP	41
New housing construction increases	38
Employment data my region	32
Car sales increase	30
Job feels more secure	25
My company shows growth	21
Net of all housing related	66
Net of my company related	34

NOTE: Multiple responses were accepted.

We used this data to evaluate the alternative growth scenarios in this forecast by focusing on jobs, GDP, and employment data.

ALTERNATIVE HISTORICAL GROWTH RATES BASED ON DIFFERENT PERIODS

Kline & Company has been publishing the *Consumer Markets for Pesticides and Fertilizers* report since 1982. This gives us long and consistent data set with which to project the future. We looked at many different approaches to incorporating the actual historical growth rates into the future. The range of growth rates in different periods for the total of all consumer market segments is shown from 0.8% on the low end to 4.8% on the high end.

The 20-year historical rate averaged 4.8% overall, so that is generally the most optimistic of the growth rates that we might use as indicators. On the other hand, the more recent four-year period is the lowest of the historical rates due to economy-related issues.

A more recent rapid growth period in the market is shown in the far right column, called "2001-2007 growth." It shows the highest rate for the outdoor sector and the second highest rate for the household and pet sector.

By far, the lowest growth rate is shown in the column labeled Statistical Trend 12-year. That series of data is based on a straight statistical trend line of a moving 12-year period. It is influenced significantly by the recent years in the period, which were characterized by economic challenges.

In evaluating these growth rates, we concluded that:

- The 20-year forecast basis includes data that is too old to be considered relevant
- A more recent 6-year and 4-year growth rate is more reflective of what might occur in the short term future through 2013
- Different growth rates would likely occur between the early years and later years of the forecast period
- For 2001-2007, the growth rate is likely a good representation of what a "hockey stick" style rebound as we are projecting for the 2014-2016 period would look like
- The statistical trend line reflects well the possible pessimistic case, which will occur if the rebound in the market does not occur

Table 2-11: Percent Annual Growth Using Various Years of History from 20 Years to 4 Years by Report Segment, 1991 to 2011

	%						
Market segment	**20-year**	**12-year**	**10-year**	**6-year**	**4-year**	**Statistical trend, 12-year**	**2001-2007 growth**
OUTDOOR							
Lawn and garden fertilizers	3.8	2.1	1.0	(1.2)	(1.5)	1.8	3.4
Herbicides	3.7	2.8	2.5	2.4	1.8	1.2	3.4
Outdoor insecticides	4.2	3.1	2.0	1.6	1.0	0.4	4.6
Insect repellents	7.3	8.5	8.2	8.4	3.0	1.6	14.3
Fungicides	6.9	6.1	5.0	5.6	4.6	0.4	6.7
Rodenticides	5.0	5.8	6.4	8.2	10.7	(0.3)	4.6
Total	4.3	3.3	2.5	1.5	0.8	1.2	4.7
HOUSEHOLD AND PET							
Houseplant fertilizers	1.3	2.5	3.0	3.4	5.2	1.0	1.2
Household insecticides	0.8	(0.5)	(0.8)	(1.0)	(1.4)	0.7	(0.5)
Pet insecticides	11.8	3.8	4.3	4.5	3.4	(0.1)	5.0
Total	5.5	2.3	2.5	2.7	2.0	0.2	2.9
TOTAL	**4.8**	**2.9**	**2.5**	**2.0**	**1.3**	**0.8**	**4.0**

From this range of possible data, we have selected the following growth rates to best represent the combination of macro-economic projections and industry survey data that we have used to develop the FutureView forecast.

Table 2-12: Likely Case Forecast Growth Rates by Period and Product Segment, 2012 to 2016

	Growth rate, %-a	
Market segment	**2012-2013**	**2014-2016**
OUTDOOR		
Lawn and garden fertilizers	0.5	3.4
Herbicides	1.8	3.4
Outdoor insecticides	1.0	4.6
Insect repellents	3.0	8.0
Fungicides	4.6	6.7
Rodenticides	5.2	4.6
Total	1.5	4.4
HOUSEHOLD AND PET		
Houseplant fertilizers	0.5	1.2
Household insecticides	0.5	2.0
Pet insecticides	3.4	5.0
Total	2.5	4.1
TOTAL	**1.9**	**4.3**

a- In a few cases, we used judgment to adjust the historical rate if we felt it did not accurately represent the outlook going forward.

MOST LIKELY SCENARIO

The overall market is expected to grow at the annual rate of 3.3% by 2016, from $4.6 billion to $5.3 billion. The outdoor category is projected to grow at 3.2% to $3.2 billion, and the household and pet segment is projected to grow at 3.5% to $2.1 billion.

Table 2-13: Likely Forecast Scenario for the U.S. Consumer Pesticides and Fertilizers Market by Market Segment and Major Category, 2012 to 2016

	$ Million					
Market segment	**2012**	**2013**	**2014**	**2015**	**2016**	**Annual growth, %**
OUTDOOR						
Lawn and garden fertilizers	1,157	1,162	1,202	1,242	1,284	2.2
Herbicides	461	470	485	502	519	2.7
Outdoor insecticides	588	595	622	650	679	3.1
Insect repellents	358	369	399	431	465	6.0
Fungicides	59	62	66	70	75	5.9
Rodenticides	184	193	202	211	221	4.8
Total	2,807	2,851	2,976	3,107	3,244	3.2
HOUSEHOLD AND PET						
Houseplant fertilizers	63	63	64	65	66	0.9
Household insecticides	497	499	509	520	530	1.4
Pet insecticides	1,258	1,301	1,366	1,435	1,508	4.4
Total	1,818	1,864	1,940	2,020	2,103	3.5
TOTAL	**4,626-a**	**4,714-a**	**4,916**	**5,126-a**	**5,347**	**3.3**

a- Total may not add due to rounding.

Likely case assumptions

Lawn and garden fertilizers, herbicides, insecticides, and fungicides

- Housing starts are flat to slightly increasing, adding a few additional lawns and gardens to the current base through new construction.
- Housing values continue to be weak early in the forecast period; investment in beautifying property is inhibited by foreclosures, but continues in the existing consumer base.
- General economic growth is flat, but continues to provide sufficient income for consumer product purchases in the base consumer group.
- No new environmental restrictions on lawn and garden pesticides are introduced.
- No large-scale drought occurs that would decrease the need for fungicides.

Insect repellents

- West Nile virus continues to be perceived as a threat.
- No large-scale drought occurs that would decrease the mosquito population.
- New active ingredients such as picaridin are widely accepted.
- Outdoor activities such as camping, kayaking, and hiking remain popular.

Houseplant fertilizers, household insecticides, and rodenticides

- Disposable income growth bottoms out in 2012 and begins to rebound at the end of the year.
- Housing starts remain flat to slightly increasing, adding fewer additional homes to the current base through new construction.
- The economy continues to provide sufficient income to sustain consumer lawn and garden purchases, but there is little if any growth in disposable income.
- The houseplant market remains stable at or slightly above the current level.
- Control of rodents remains important to homeowners.

Pet insecticides

- The U.S. pet population continues to increase slightly, adding to the current base.
- Flea and tick pressures remain stable.
- Spending on pet products grows less rapidly than it has in the recent past, but is not dramatically affected by the slow economy.

OPTIMISTIC AND PESSIMISTIC CASE SCENARIOS

Every forecast has a range of possible outcomes around it. For this reason, Kline publishes an optimistic forecast and pessimistic forecast to accompany its likely case. The growth rates for the optimistic case are taken from the two fastest growing periods in the historical data in this report.

The growth rates for the pessimistic case are taken from the lowest growth period in the historical data. The optimistic view of the overall market is for a growth rate of 4.0% annually in 2012 and 2013, and a jump to 4.8% from the years of 2014-2016 of the forecast, while the pessimistic view is for the market to grow at 1.2% in both periods.

Table 2-14: Compound Annual Growth Rate Percentages by Period and Case, 2011 to 2016

	%					
	Likely case		Optimistic case		Pessimistic case	
Market segment	**2011-2013**	**2014-2016**	**2011-2013**	**2014-2016**	**2011-2013**	**2014-2016**
OUTDOOR						
Lawn and garden fertilizers	0.5	3.4	3.4	3.8	1.8	1.8
Herbicides	1.8	3.4	3.4	3.7	1.2	1.2
Outdoor insecticides	1.0	4.6	4.6	4.2	0.4	0.4
Insect repellents	3.0	8.0	14.3	7.3	1.6	1.6
Fungicides	4.6	6.7	6.7	6.9	0.4	0.4
Rodenticides	5.2	4.6	4.6	5.0	(0.3)	(0.3)
Total	1.5	4.4	4.7	4.3	1.2	1.2
HOUSEHOLD AND PET						
Houseplant fertilizers	0.5	1.2	1.2	1.3	1.0	1.0
Household insecticides	0.5	2.0	(0.5)	0.8	0.7	0.7
Pet insecticides	3.4	5.0	5.0	11.8	(0.1)	(0.1)
Total	2.5	4.1	2.9	5.5	0.2	0.2
TOTAL	**1.9**	**4.3**	**4.0**	**4.8**	**0.8**	**0.8**

OPTIMISTIC SCENARIO

Kline's total industry forecast in the optimistic scenario to 2016 is for growth to reach $5.9 billion and a CAGR% of 5.5%. Total outdoor is projected to grow at 4.8% to $3.5 billion, while total household & pet is projected to grow to $2.4 billion, or 6.6%.

Table 2-15: Optimistic Forecast Scenario for the U.S. Consumer Pesticides and Fertilizers Market by Market Segment and Major Category, 2012 to 2016

	$ Million					
Market segment	**2012**	**2013**	**2014**	**2015**	**2016**	**CAGR, %**
OUTDOOR MARKETS						
Lawn and garden fertilizers	1,190	1,230	1,276	1,324	1,374	3.6
Herbicides	468	484	502	520	539	3.6
Outdoor insecticides	609	637	664	692	721	4.4
Insect repellents	398	455	488	524	562	10.1
Fungicides	60	64	69	74	79	6.8
Rodenticides	183	191	201	211	221	4.9
Total	2,908	3,061	3,199	3,344	3,497	4.8
HOUSEHOLD AND PET MARKETS						
Houseplant fertilizers	64	64	65	66	67	1.3
Household insecticides	492	490	494	497	501	0.3
Pet insecticides	1,279	1,343	1,502	1,679	1,876	9.0
Total	1,835	1,898	2,060	2,242	2,444	6.6
TOTAL	**4,742-a**	**4,958-a**	**5,260-a**	**5,586**	**5,941**	**5.5**

a- Total may not add due to rounding.

Optimistic case assumptions

Lawn and garden fertilizers, herbicides, insecticides, and fungicides

- Housing starts rebound more quickly than expected, adding additional lawns and gardens to the current base through new construction.
- Housing values start to rebound in 2013, encouraging growth in investment in beautifying property beyond the base of consistent spending consumers.
- General economic growth restarts to provide growing income for consumer product purchases.
- No new environmental restrictions on lawn and garden pesticides are introduced.
- No large-scale drought occurs that would decrease the need for fungicides.
- Increased gasoline prices keeps consumers at home for vacations, and gardening becomes an even more popular pastime.

Insect repellents

- West Nile virus continues to be a threat or is perceived as even more of a threat.
- No large-scale drought occurs that would decrease the mosquito population.
- New active ingredients such as picaridin are widely accepted.
- Outdoor activities such as camping, kayaking, and hiking remain popular.
- New fears such as bird flu or terrorist activities abroad spur growth in vacations in the United States.

Houseplant fertilizers, household insecticides, and rodenticides

- Housing starts rebound more quickly than expected, adding additional homes to the current base through new construction.
- Housing values start to rebound in 2013, encouraging growth in investment in beautifying property beyond the base of consistent spending consumers.
- The houseplant market increases as indoor plants grow in popularity.
- Gasoline prices revert to higher levels and keep consumers at home during vacations, making home pest control more of a necessity.
- Rodent control grows in importance due to new rodent-borne diseases.

Pet insecticides

- The U.S. pet population continues to increase, adding to the current base.
- Flea and tick pressures grow as lyme disease grows as a threat.
- No impact is felt on pet spending from current economic factors.

PESSIMISTIC SCENARIO

The pessimistic scenario anticipates that the economy will not improve as projected in the likely case. Growth percentages are derived from the lowest growth periods experienced over the last five to six years by the consumer pesticides and fertilizers sector, based on Kline's historical data.

We used judgment in a few cases where the recent short-term sales levels showed negative growth, since that was not deemed to be representative of even our pessimistic case. It is not that we do not believe some of the segments will decline in sales; it is rather the case that no negative growth segments are obvious at the time of writing.

The pessimistic scenario projects total sales for the consumer pesticides and fertilizers category to grow at 0.8% to $4.7 billion. The two sub-segments are projected to grow at 1.2% to $2.9 billion for total outdoor and 0.2% to $1.8 billion for total household and pet.

Table 2-16: Pessimistic Forecast Scenario for the U.S. Consumer Pesticides and Fertilizers Market by Market Segment and Major Category, 2012 to 2016

	$ Million					
Market segment	**2012**	**2013**	**2014**	**2015**	**2016**	**CAGR, %**
OUTDOOR						
Lawn and garden fertilizers	1,172	1,193	1,215	1,237	1,260	1.8
Herbicides	458	464	469	475	480	1.2
Outdoor insecticides	585	587	589	591	594	0.4
Insect repellents	353	359	365	371	377	1.6
Fungicides	57	57	57	57	58	0.4
Rodenticides	174	174	173	173	172	(0.3)
Total	2,799	2,833	2,868	2,904	2,940	1.2
HOUSEHOLD AND PET						
Houseplant fertilizers	63	64	65	65	66	1.0
Household insecticides	498	502	505	509	513	0.7
Pet insecticides	1,217	1,216	1,215	1,215	1,214	(0.1)
Total	1,778	1,782	1,786	1,789	1,793	0.2
TOTAL	**4,577**	**4,615**	**4,654**	**4,693**	**4,733**	**0.8**

Pessimistic case assumptions

Lawn and garden fertilizers, herbicides, insecticides, and fungicides

- Housing starts do not rebound as projected and home values stay low longer than projected in our likely case.
- The economy contracts and income that might be spent on consumer lawn and garden purchases is diverted elsewhere.
- New environmental restrictions on lawn and garden pesticides are introduced.

- Large-scale drought occurs, which decreases the need for fungicides.

Insect repellents

- West Nile virus is no longer perceived as a threat.
- Large-scale drought occurs and decreases the mosquito population.
- Outdoor activities such as camping, kayaking, and hiking become less popular due to external factors such as the bird flu virus.

Houseplant fertilizers, household insecticides, and rodenticides

- The housing market shows little to no rebound in 2012 and 2013.
- The economy contracts, and income that might be spent on consumer product purchases is diverted elsewhere.
- Some environmental factors decrease pest pressures.

Pet insecticides

- The U.S. pet population flattens.
- Flea and tick pressures decrease due to dry weather over several seasons.
- Economic pressures force some reduction in spending on pets for some families.

COMPARISON OF FORECAST SCENARIOS

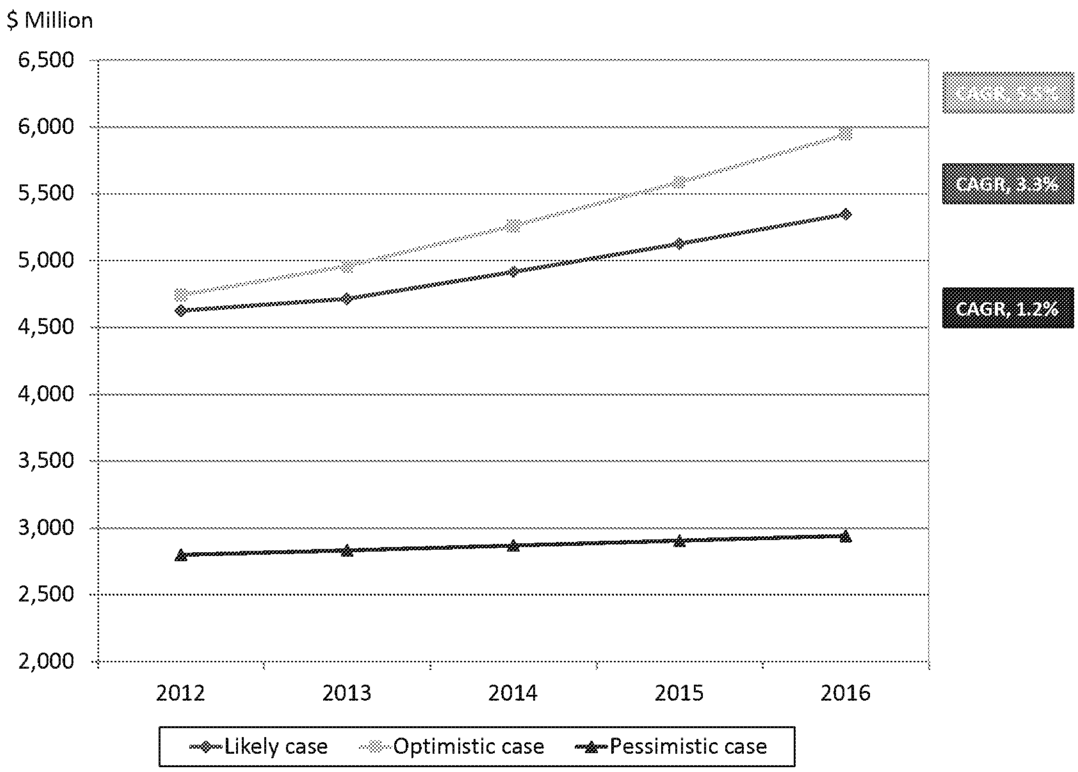
The three forecast scenarios are presented graphically and in table form. The three graphs compare the forecast scenarios for the total category, the outdoor category, and the household and pet category.

Total market comparison

Table 2-17: Forecast Scenario Comparison for the Total Consumer Pesticides and Fertilizers Market, 2012 to 2016

	$ Thousand					
Total market scenario	**2012**	**2013**	**2014**	**2015**	**2016**	**CAGR, %**
Likely case	4,626	4,714	4,916	5,126	5,347	3.3
Optimistic case	4,742	4,958	5,260	5,586	5,941	5.5
Pessimistic case	2,799	2,833	2,868	2,904	2,940	1.2

Figure 2-6: FutureView Forecast Scenarios for the U.S. Consumer Pesticides and Fertilizers Market, 2012 to 2016

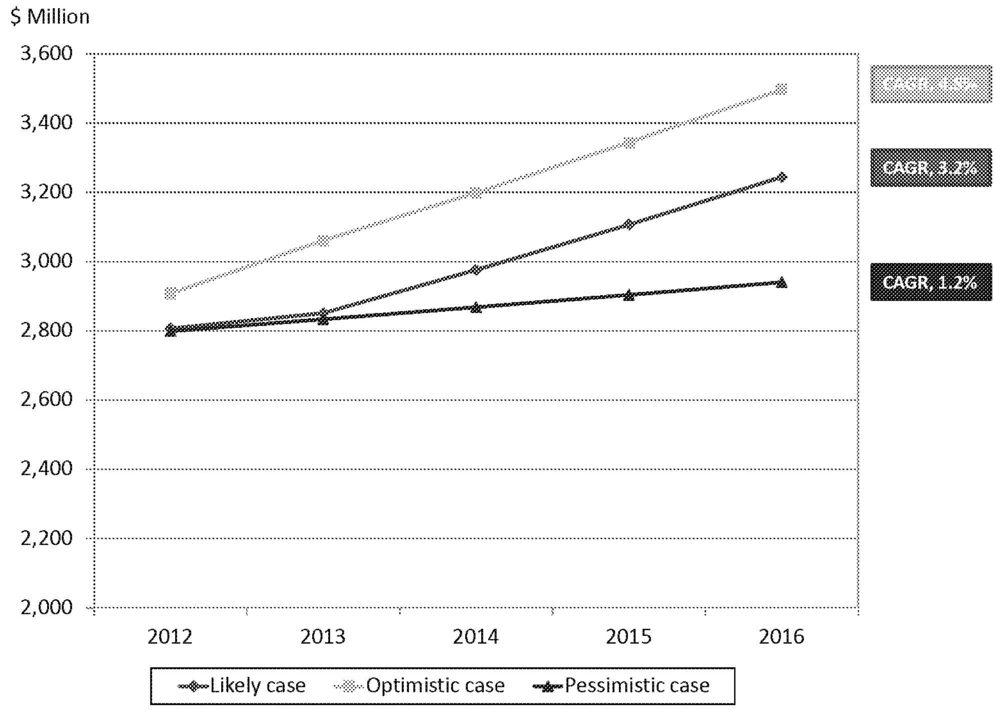


Outdoor segment comparison

Table 2-18: Forecast Scenario Comparison for Outdoor Market Segment, 2012 to 2016

	$ Thousand					
Outdoor market scenario	**2012**	**2013**	**2014**	**2015**	**2016**	**CAGR, %**
Likely case	2,807	2,851	2,976	3,107	3,244	3.2
Optimistic case	2,908	3,061	3,199	3,344	3,497	4.8
Pessimistic case	2,799	2,833	2,868	2,904	2,940	1.2

Figure 2-7: FutureView Forecast Scenarios for the Outdoor Segment of the U.S. Consumer Pesticides and Fertilizers Market, 2012 to 2016

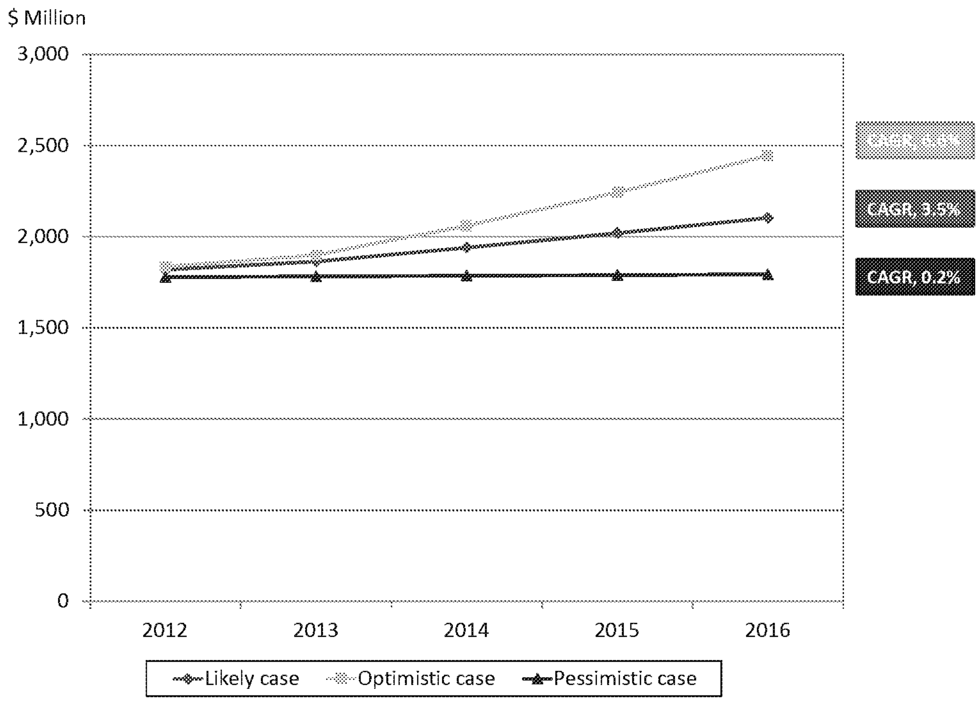


Household and pet segment comparison

Table 2-19: Forecast Scenario Comparison for Household and Pet Market Segment, 2012 to 2016

	$ Thousand					
Household and pet market scenario	**2012**	**2013**	**2014**	**2015**	**2016**	**CAGR, %**
Likely case	1,818	1,864	1,940	2,020	2,103	3.5
Optimistic case	1,835	1,898	2,060	2,242	2,444	6.6
Pessimistic case	1,778	1,782	1,786	1,789	1,793	0.2

Figure 2-8: FutureView Forecast Scenarios for the Household and Pet Segment of the U.S. Consumer Pesticides and Fertilizers Market, 2012 to 2016



3. FERTILIZERS

COVERAGE

This section covers fertilizers and plant foods sold through retail outlets, divided according to use, as follows:

- 3A. Lawn Fertilizers
- 3B. Garden Fertilizers
- 3C. Houseplant Fertilizers

Fertilizers, including those combined with insecticides, herbicides, fungicides, dried manure, activated sewage sludge, and other organic fertilizers, are covered in this section. Also included are products containing secondary nutrients and micronutrients.

THE MARKET

Marketers' sales

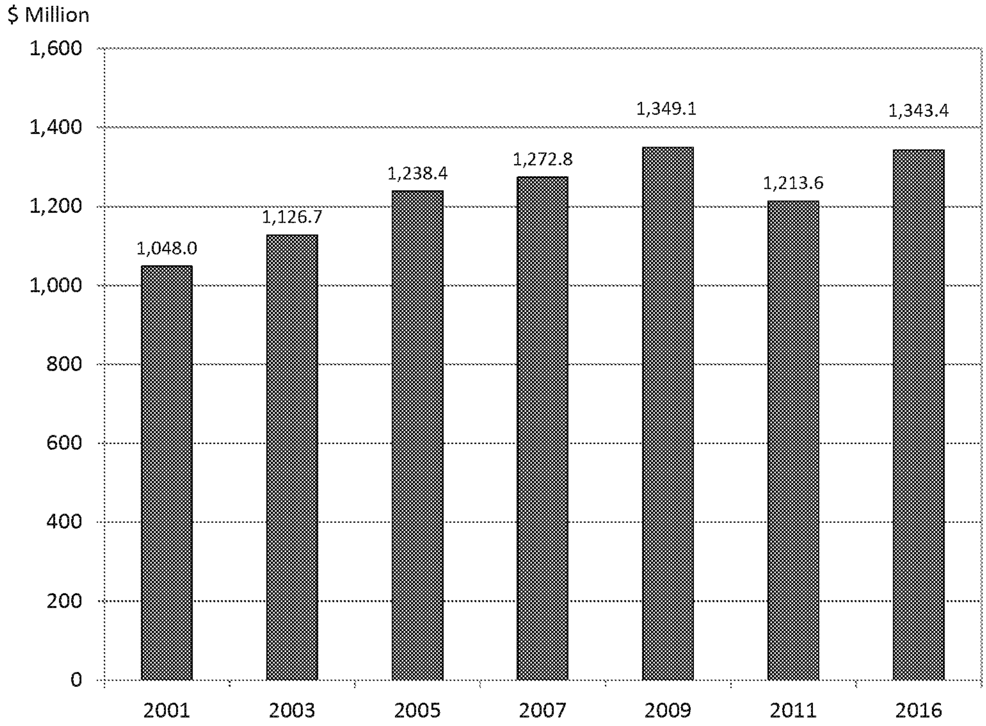
Marketers' sales of lawn, garden, and houseplant fertilizers in the United States are estimated at $1,213.6 million in 2011, representing an annualized decrease of 5.0% and a net increase of 10.0% from sales of $1,349.1 million in 2009. The decrease in sales is primarily due to lower prices.

Table 3-1: Sales of Fertilizers to the U.S. Consumer Market, 1999-2011

Year-a	$ Million	Average annual growth, %
1999	830.3	12.3
2001	1,048.2	13.1
2003	1,084.0	1.7
2005	1,238.4	7.1
2007	1,272.8	1.4
2009	1,349.1	3.0
2011	1,213.6	(5.0)

a- This study was not conducted in 2000, 2002, 2004, 2006, 2008, or 2010.

Figure 3-1: Total Fertilizer Category Sales in the United States, 2001 to 2016



Sales by region

The South leads in consumption of fertilizers with approximately 37% of total sales in 2011, followed by the Midwest with 24.1%. The Northeast ranks third with 19.7%.

Table 3-2: Sales of Fertilizers to the U.S. Consumer Market by Region, 2011

Region	$ Million	% Of total
South	450.3	37.1
Midwest	292.7	24.1
Northeast	238.5	19.7
West	232.1	19.1
Total	**1,213.6**	**100.0**

Retail shipments

Shipments of consumer fertilizers are estimated at 3,530.5 million lb and 7.2 million gal of formulated product in 2011.

Application

Lawn fertilizers account for over 68% of total sales and nearly 87% of the physical weight. Garden fertilizers account for 26.5% of sales, and houseplant fertilizers account for 5.2%.

Table 3-3: Sales of Fertilizers to U.S. Consumer Market by Market Segment, 2011

	Million			% Of total		
Application	**Lb**	**Gal**	**$**	**Weight**	**Volume**	**Value**
Lawn	2,273.2	1.7	829.1	86.5	23.6	68.3
Garden	326.9	4.7	321.7	12.4	65.3	26.5
Houseplant	27.6	0.8	62.8	1.1	11.1	5.2
Total	**2,627.7**	**7.2**	**1,213.6**	**100.0**	**100.0**	**100.0**

Product form

Solid fertilizers account for an estimated 87% of total sales in 2011.

Table 3-4: Sales of Fertilizers to U.S. Consumer Market by Product Form, 20112

	Million			
Product form	**Lb**	**Gal**	**$**	**% Of total value**
Solid	2,627.7	-	1,058.9	87.2
Liquid	-	7.2	154.7	12.8
Total	**2,627.7**	**7.2**	**1,213.6**	**100.0**

Product type

Straight fertilizers, manures, and other organic products account for approximately 57% of total sales. Fertilizer-pesticide combinations, both herbicide and insecticides, contribute the remaining 43% of sales.

Table 3-5: Sales of Fertilizers to U.S. Consumer Market for Straight and Combined with Pesticides, 2011

	Million			% Of total		
Product type	**Lb**	**Gal**	**$**	**Weight**	**Volume**	**Value**
Straight	1,281.7	6.5	691.3	48.8	90.3	57.0
Combination	1,346.0	0.7	522.3	51.2	9.7	43.0
Total	**2,627.7**	**7.2**	**1,213.6**	**100.0**	**100.0**	**100.0**

Product materials

Nitrogen accounts for about 20% of the total materials used. Primary nutrients in the total account for slightly more than one-third of the total used. In comparison, toxicants represent less than 1% of the total weight.

Table 3-6: Volumes of Active Ingredients used in Fertilizers in U.S. Consumer Market, 2011

Materials	Million lb	% Of total
Nitrogen	696.5	19.5
Phosphates	115.7	3.2
Potash	161.4	4.5
Other nutrients-a	137.0	3.8
Toxicants-b	12.6	0.4
All other-c	2,451.3	68.6
Total	**3,574.5**	**100.0**

a- Includes secondary nutrients, micronutrients, and trace elements.
b- Includes herbicides, insecticides, and fungicides.
c- Includes manures and carrier materials other than water.

ACQUISITIONS, DIVESTITURES, AND NEW PRODUCTS

The increasing concentration of retail sales of consumer lawn and garden products in the hands of mass merchandisers, home improvement centers, and other large buying groups has been driving a rapid restructuring and consolidation of suppliers. Since the 2009 edition of this report was published, mergers and acquisitions have continued. Many of these new and changing business relationships affect the fertilizer segment:

- In early 2012, Howard Johnson's Enterprises, a Missouri-based manufacturer, marketer, and innovator of lawn and garden products for consumer and professional use, was acquired by Central Garden & Pet.
- In April 2012, Valent announced an agreement with The Scotts Company wherein Scotts will acquire certain assets of the Green Light Company, including trademarks for the Green Light brand Super Bloom.
- In March 2011, Israel Chemicals Ltd, an Israeli multinational fertilizer and specialty chemicals company, announced that they had completed the purchase of the Global Professional business segment from Scotts. The acquisition included the line of branded products including Osmocote, Sierrablend, and Peters Professional; a large sales and marketing force; R&D resources; as well as several factories and peat mines located in Holland, the United Kingdom, and the United States.

- In January 2011, Lebanon Seaboard acquired the horticulture and turf division of Plant Health Care, Inc. This acquisition was done in order to increase the product range of Lebanon Seaboard in the golf course and landscape professional market.
- In 2009, The Andersons, Inc. acquired the Fertilizer Division of Hartung Brothers, Inc., as an addition to their Plant Nutrient Group. The company also has completed the purchase of Immokalee Farmers Supply, Inc., Immokalee, FL, a specialty vegetable producer in Southwest Florida. The Immokalee Farmers Supply operations will be a part of The Andersons Plant Nutrient Group's Southern Region.

New product introductions in the reporting period include the following:

- In its 2012 catalog, VPG has introduced a number of new products. Under the Ferti-Lome brand, VPG has launched Garden Cote fertilizer, and HydroStretch soil amendment. Under the Natural Guard brand, VPG has recently launched Blood Meal, Bone Meal, Cottonseed Meal, Evergreen & Holly Food, Plant Food, Rose Food, and Tomato & Vegetable Food.
- Recent new additions to Monterrey's product line include Dr. Iron Liquid and RTU spray, Epsom Salts, Fish & Poop, Foli-Cal, Grass Getter, Green Tree Pro Nutriboosters, Mark-It Blue, M-20, Monterey Perc-O-Late Plus, Nature's Own Spray Helper, Sequestar Iron 6%, and Take Down Garden Spray.
- In 2011, in the Earth-tone line, Espoma introduced Espoma Planting Mix and Espoma Organic Vermiculite.
- In 2009, Pennington introduced a new brand—Signature series fertilizer for the U.S. market.

GOVERNMENT REGULATIONS

Fertilizers are not regulated by the federal government, but rather by state agriculture departments and local governments. Many states have adopted as law the Uniform State Fertilizer Bill, initiated by the Association of American Plant Food Control Officials, for labeling, registration, licensing, inspection tonnage reports, and other activities. However, some states still use the bill only as a guideline.

Although it is primarily an agricultural issue, government and public concern over groundwater contamination from fertilizers has begun to affect product formulation, allowing higher-priced controlled-release products to gain more prominence in the market. A number of municipalities have passed ordinances in the past few years that limit the amount of or prohibit the application phosphorous to home lawns. In some cases, such as in Commerce Township, MI, fertilizers with phosphorous cannot be applied to homeowner's lawns and there is a limit on the amount of nitrogen that can be applied. This issue will continue to increase in the near future as fertilizer runoff continues to cause groundwater contamination problems.

A growing number of states and individual counties and municipalities have banned or restricted the disposal of grass, leaves, and other yard waste at landfills due to capacity problems. Several years ago, the Professional Lawn Care Association of America instituted an environmental awareness campaign aimed at consumers that promotes the recycling of grass clippings and emphasizes the benefits of this practice for the lawn and the environment. Kmart and several other suppliers are participating in the campaign through incorporation of the logo and educational messages on packaging.

COMPETITION

Combined sales of lawn, garden, and houseplant fertilizers for the nine largest suppliers of consumer products in 2011 are presented in Table 3-7. Collectively, they account for 93% of the total market, although the degree of concentration varies according to product category. Scotts represents nearly three-quarters of total sales.

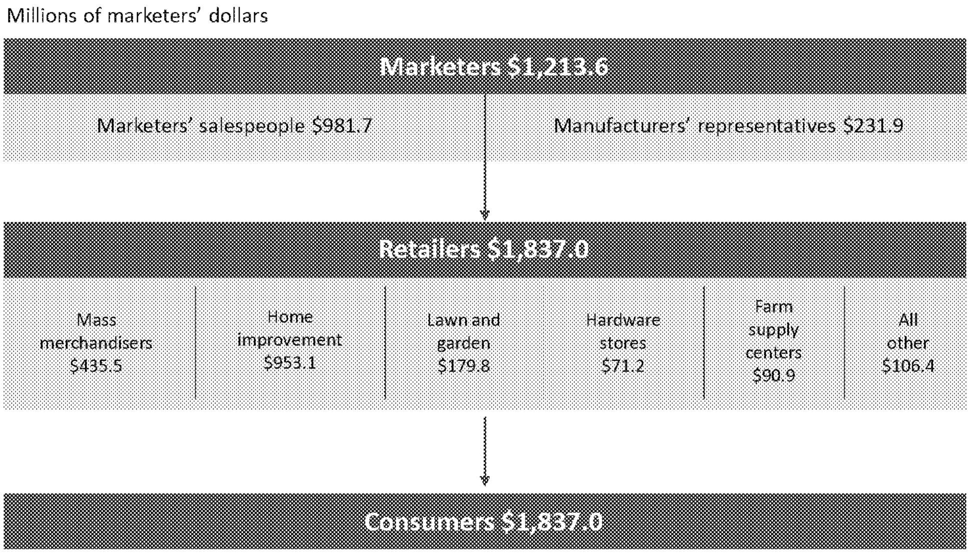
Table 3-7: U.S. Sales of Consumer Fertilizers by Major Marketer, 2011

Company	$ Million	% Of total
Scotts	899.6	74.1
Lebanon Seaboard	44.0	3.6
The Andersons	34.5	2.8
Central Garden & Pet	31.2	2.6
Voluntary Purchasing Groups	29.4	2.4
Spectrum Brands	14.2	1.2
Espoma	17.7	1.5
Easy Gardener	22.0	1.8
Howard Johnson	17.0	1.4
Woodstream	22.0	1.8
All other	82.0	6.8
Total	**1,213.6**	**100.0**

DISTRIBUTION CHANNELS

Major marketers primarily use their own sales forces, but smaller suppliers more commonly sell through manufacturers' representatives.

Figure 3-2: Estimated U.S. Distribution of Consumer Lawn, Garden, and Houseplant Fertilizers, 2011



The channel data reflects the number of respondents that purchase the product category in each type of outlet. This historical method does not take into account the impact of income differences on channel revenue. To account for that impact, this analysis used the respondents with incomes of more than $50,000 per year to reflect the higher disposable incomes spent on lawn, garden, and home products, as well as larger lot sizes associated with these higher-income individuals. Both factors would tend to increase their spending per purchase. Kline & Company has not altered the tabulations shown in this section, but has used only the higher-income respondents to calculate distribution channel importance.

Approximately 80% of fertilizer sales are now made directly to retail accounts, with most of the remainder handled by distributors and wholesalers. Several major suppliers (notably Scotts) that had previously sold almost exclusively through distributors began selling directly to selected retailers during the last several years. Direct sales of lawn and garden fertilizers are expected to continue to increase in significance because of the size and importance of the large retail chains in the industry. Except for Scotts and Spectrum Brands, suppliers of houseplant fertilizers are often too small to provide warehouse facilities or carry a high accounts receivables for their customers, so they rely on distributors to move their products.

Home improvement centers are the most important retail outlets for consumer fertilizers, accounting for almost 52% of marketers' sales in 2011. Mass merchandise stores have moved into second place in recent years, with nearly 24% of sales. Lawn and garden centers, which have declined in importance, rank third with 9.8%.

Table 3-8: Sales of Fertilizers to U.S. Consumer Market by Type of Retail Establishment, 2011		
Retail outlet	**$ Million**	**% Of total**
Home improvement centers	953.1	51.9
Mass merchandise stores	435.5	23.7
Lawn and garden centers-a	179.8	9.8
Farm supply stores	90.9	4.9
Hardware stores	71.2	3.9
All other-b	106.5	5.8
Total	**1,837.0**	**100.0**

a- Includes retail nurseries.
b- Includes supermarket and grocery stores, warehouse clubs, mail order, and other retail outlets.

OUTLOOK

Sales of consumer fertilizers have grown rapidly in recent years, following a long period of slow growth. The economic recession has had a negative impact on volumes, but once the recovery is complete, use is expected to continue its recent growth trend. The rapid influx of combination products seen in the past few years is expected to flatten or actually decline as the use of more organic fertilizers increases.

Public and regulatory concern over environmental damage from fertilizer leaching and runoff is likely to favor marketers of controlled-release synthetics and organic products. There will be an increase in the introduction of organic fertilizers over the next few years and their usage in many cases, will be forced by local government regulations prohibiting or limiting the amount of phosphorous that can be used on home lawns. The increased emphasis on organic fertilizers in the future will reduce the use of combination products and increase the use of traditional lawn herbicides and insecticides.

Sales of consumer fertilizers are projected to reach $1,343.4 million in 2016 for an annual increase of 2.1%.

Table 3-9: Outlook for Fertilizers in U.S. Consumer Market, 2011-2016		
Year	**$ Million**	**Average annual growth, %**
2011	1,213.6	-
2016	1,343.4	2.1

3A. LAWN FERTILIZERS

Sales in the lawn fertilizer segment total $829.1 million in 2011, representing a 6.6% annualized decrease from sales of $955.1 million in 2009, largely resulting from reported price decreases.

Since the 2009 edition of this report was published, the following changing business relationships have affected the lawn fertilizers segment:

- In early 2012, Howard Johnson's Enterprises, a Missouri-based manufacturer, marketer, and innovator of lawn and garden products for consumer and professional use, was acquired by Central Garden & Pet.
- In March 2011, Israel Chemicals Ltd, an Israeli multinational fertilizer and specialty chemicals company, announced that they had completed the purchase of the Global Professional business segment from Scotts. The acquisition included the line of branded products including Osmocote, Sierrablend, and Peters Professional; a large sales and marketing force; R&D resources; as well as several factories and peat mines located in Holland, the United Kingdom, and the United States.
- In January 2011, Lebanon Seaboard acquired the horticulture and turf division of Plant Health Care, Inc. This acquisition was done in order to increase the product range of Lebanon Seaboard in the golf course and landscape professional market.
- In 2009, The Andersons, Inc. acquired the Fertilizer Division of Hartung Brothers, Inc., as an addition to their Plant Nutrient Group.

New product introductions in this segment in the reporting period include the following:

- In 2009, Pennington introduced a new brand—Signature series fertilizer for the U.S. market—and Knockout insecticides and herbicides in early 2010.
- Recent new additions to Monterrey's product line include Dr. Iron Liquid and RTU spray, Epsom Salts, Fish & Poop, Foli-Cal, Grass Getter, Green Tree Pro Nutriboosters, Mark-It Blue, M-20, Monterey Perc-O-Late Plus, Nature's Own Spray Helper, Sequestar Iron 6%, and Take Down Garden Spray.

Environmental issues and related regulatory activity are becoming less prominent. The industry has responded to consumer and governmental concern over groundwater contamination from fertilizers by introducing higher-value controlled-release products. In addition, disposal of grass clippings is less of an issue since mulch suppliers have built businesses based on recycled yard waste collected by municipalities. One example is The Scotts Company, which has developed a business that takes advantage of Hyponex's composting expertise by setting up composting facilities and entering into agreements with municipalities and waste haulers to compost yard waste. The project not only generates fees, but also consumes the compost as a raw material substitute in some products.

PRODUCT DESCRIPTION

Lawn fertilizers are used to encourage strong root development, dense and rapid growth, and better coloration of turf. Some products are designed for general use, while others are formulated for application during different months of the growing season, on different grasses and soils, and in different climates. By law, products must contain nitrogen, phosphorus, and potassium, the three major elements essential to plant life, to be marketed as fertilizers. Lawn fertilizers often contain secondary and trace nutrients as well. Fertilizer-pesticide combinations—especially fertilizer-herbicide products (commonly called "weed and feed")—are also popular with consumers because of their convenience and with manufacturers and retailers because of their higher margins.

THE MARKET

Marketers' sales

Marketers' sales of lawn fertilizers are estimated at $829.1 million in 2011, representing an annualized decrease of 6.6% from 2009 sales of $955.1 million.

Table 3A-1: Sales of Lawn Fertilizers to U.S. Consumer Market, 1999-2011

Year-a	$ Million	Average annual growth, %
1999	592.1	16.8
2001	737.6	12.3
2003	770.3	2.2
2005	892.0	7.9
2007	925.5	1.9
2009	955.1	1.6
2011	829.1	(6.6)

a- This study was not conducted in 2000, 2002, 2004, 2006, 2008, or 2010.

Sales by region

The South accounts for over 37% of lawn fertilizer sales, followed by the Midwest with 24.1% and the West and Northeast with 19.2%.

Table 3A-2: Sales of Lawn Fertilizers to U.S. Consumer Market by Region, 2011

Region	$ Million	% Of total
South	310.1	37.4
Midwest	199.8	24.1
West	160.1	19.2
Northeast	159.1	19.2
Total	**829.1**	**100.0**

Retail shipments

Shipments of lawn fertilizers to retail outlets are estimated at 3,176 million lb and 1.7 million gal of finished products in 2011.

Product form

Solid fertilizers, including granules, pellets, powders, and prills, are still by far the most popular form. Sales of liquid hose-end products have flattened as their popularity has faded and as water-soluble fertilizers have gained more attention. Solids currently account for approximately 98% of the market.

Table 3A-3: Sales and Volume of Fertilizers to U.S. Consumer Market by Product Form, 2011

	Million			
Product form	**Lb**	**Gal**	**$**	**% Of total value**
Solid	3,176.7	-	812.5	98.0
Liquid	-	1.7	16.6	2.0
Total	**3,176.7**	**1.7**	**829.1**	**100.0**

Product type

Straight lawn fertilizers account for approximately 37% of sales, 41% of the total weight of solid products, and 59% of the total quantity of liquid products. Fertilizer-herbicide combination products represent approximately 63% of sales, 58% of total weight, and 41% of volume. Other combination products make up the remainder.

Table 3A-4: Sales of Fertilizers to U.S. Consumer Market for Straight and Combined with Pesticides, 2011						
	Million			% Of total		
Product type	**Lb**	**Gal**	**$**	**Weight**	**Volume**	**Value**
STRAIGHT	927.2	1.0	306.8	41	59	37
COMBINATION						
Herbicide	1,315.0	0.7	497.5	58	41	60
Insecticides	31.0	-	24.8	1	-	3
Total	1,346.0	0.7	522.3	59	41	63
TOTAL	**2,273.2**	**1.7**	**829.1**	**100**	**100**	**100**

Product materials

Nitrogen is the primary nutrient in lawn fertilizers, accounting for 673 million lb, or 20.1% of the total weight of solid products, in 2011. Phosphates and potash account for about 2.2% and 3.4%, respectively.

Table 3A-5: Estimated U.S. Consumption of Raw Materials in Consumer Lawn Fertilizers, 2011		
Materials	**Million lb**	**% Of total**
Nitrogen	637	20.1
Phosphates	70	2.2
Potash	108	3.4
Other nutrients-a	125	3.9
Toxicants-b	13	0.4
All other-c	2,224	70.0
Total	**3,177**	**100.0**

a- Includes secondary nutrients and micronutrients.
b- Includes herbicides and insecticides.
c- Includes carrier materials other than water.

Pesticide active ingredients used in combination with lawn fertilizers are estimated at 12.5 million lb, or less than 1% of total poundage. Herbicides account for more than 99% of toxicants used with insecticides making up the remaining 0.1%.

Table 3A-6: Estimated U.S. Consumption of Active Ingredients in Consumer Lawn Fertilizers, 2011

Active ingredients	Million lb	% Of category	% Of total
HERBICIDES			
2,4-D	5.9	47.6	47.2
Pendimethalin	2.2	17.7	17.6
MCPP	2.3	18.5	18.4
Dicamba	1.1	8.9	8.8
Benfluralin	0.2	1.6	1.5
Chlorfurenal	0.3	2.4	2.4
Atrazine	0.3	2.4	2.4
All other-a	0.1	0.8	0.8
Total	12.4	100.0	99.1
INSECTICIDES-b	0.1	100.0	0.8
TOTAL	**12.5**	**100.0**	**100.0**

a- Includes dithopyr, trifluralin, prodiamine, benefin, and many other herbicides.
b- Includes bifenthrin, imidacloprid, lambda cyhalothrin, and other insecticides.

In weed and feed products, 2,4-D remains the most widely used herbicide, accounting for approximately 50% of total active ingredient consumption, followed by pendimethalin and MCPP.

Bifenthrin is currently the leading insecticide active ingredient in combination products, due to the phaseout of chlorpyrifos and diazinon a few years ago. It is used at low rates and accounts for less weight of active ingredient in products than previously used actives. Fungicide combination products were not reported in this study.

PRIVATE-LABEL ACTIVITY

Exclusive, or store brands, and brands manufactured under contract remain a significant factor in the lawn fertilizer market, representing approximately 20% of marketers' sales in 2011. Kmart and Walmart are the largest marketers of these products. The Andersons, Lebanon Seaboard, Scotts, Pennington, and Howard Johnson are the largest manufacturers of private-label and contract-packaged granular fertilizers.

PRICES AND MARGINS

The market for straight lawn fertilizers remains price-competitive, but price increases have been instituted by the major marketers. Marketers continue to emphasize combination products: product groups (three- and four-step lawn care programs) and specialty formulations for particular regions, grasses, or problems. The effect of the shift to combinations by consumers has been a major increase in average prices paid. Marketers had been emphasizing organic or all-natural fertilizers, but consumer acceptance of organic products has been weak.

Lawn and garden centers typically require 30% to 40% margins on lawn fertilizers, but discount centers often sell these products at margins of 20% to 30%. During spring promotions, many retail outlets sell lawn fertilizers as loss leaders to promote store traffic and encourage the purchase of equipment, which is more profitable to retailers. Payment of slotting fees to major retailers for shelf space sometimes substitutes for or enhances retailer margin on sales.

Table 3A-7: Retail Prices of Selected Consumer Lawn Fertilizers in the United States, 2011

Brand	Marketer	Form	Size	Retail price, $
Scotts Turf Builder Plus Halts, 36-0-4	Scotts	Granular	13.35lb	20.94
Scotts Turf Builder Plus 2	Scotts	Granular	15.97 lb	16.37
Scotts Turf Builder With Summerguard, 28-0-8	Scotts	Granular	13.35 lb	21.74
Scotts Starter Fertilizer, 20-27-5	Scotts	Granular	18 .00lb	19.94
Scotts WinterGuard with Plus 2 Weed Control, 26-3-12	Scotts	Granular	45.00 lb	53.98
Scotts Bonus S, 29-0-10	Scotts	Granular	34.48lb	35.94
Scotts Turf Builder Liquid w/sprayer	Scotts	Liquid	32.00 oz	12.48
Scotts Turf Builder Weed & Feed w/sprayer, 29-2-3	Scotts	Liquid	32.00 oz	13.98
Scotts Organic Choice	Scotts	Granular	29.10 lb	21.44
Scotts Snap Weed & Feed Fertilizer, 25-0-4	Scotts	Granular	13.46lb	22.98
Milorganite Organic Nitrogen Fertilizer	Milorganite	Granular	36.00 lb	12.37
Ironite Lawn and Garden Spray (RTU)	Ironite	Liquid	32.00 oz	13.27
Lesco Turf Pro, 19-0-7	Lesco	Granular	50.00 lb	48.98

Most granular lawn fertilizers are packaged in polyethylene or multi-walled paper bags. Fertilizers with lower nutrient analyses are usually sold in 20 lb to 60 lb bags. High-analysis and fertilizer-pesticide combination products are typically sold in 15 lb to 40 lb bags. Bag sizes are selected for the number of square feet covered by the volume of fertilizer they contain.

Liquid hose-end fertilizers are typically packaged in 1 qt plastic spray bottles that attach directly to a garden hose.

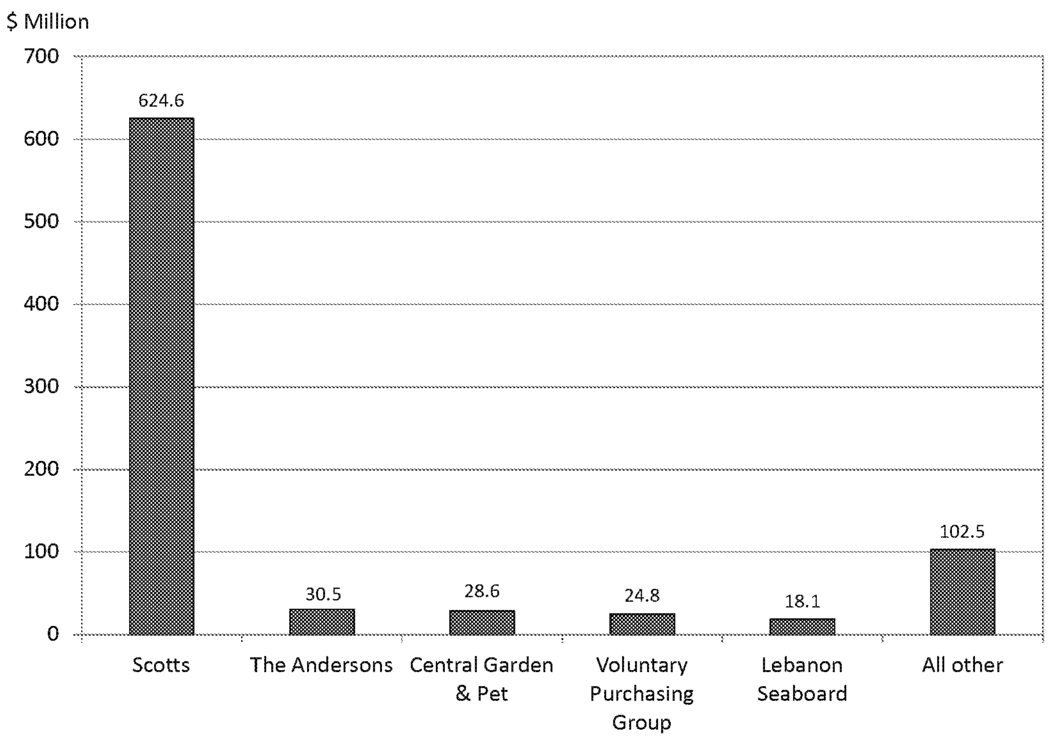
The most popular coverage size for fertilizer packages are 5,000 sq ft or 15,000 sq ft. As fertilizer manufacturers have increased the nitrogen content of their products to promote more rapid and dramatic greening of lawns, lighter-weight carrier materials have come into use, resulting in lighter, smaller package sizes with the same effective coverage as older products.

Package design has become increasingly important in the lawn fertilizer segment in terms of both eye appeal and conveyance of information. Many marketers have overhauled their package and point-of-purchase display graphics during the past several years, providing more consumer-friendly and informative packaging.

COMPETITION

With the full benefit of the acquisition of Stern's Miracle-Gro Products Inc. and the exit of the fertilizer market by Spectrum Brands, Scotts holds the dominant position as the leading supplier of consumer lawn fertilizers, now accounting for more than 75% of total category sales. Its closest competitor, The Andersons, represents approximately 4% of sales in 2011. The next closest competitor, Central Garden & Pet, follows with approximately 3% of sales.

Figure 3A-1: U.S. Sales of Consumer Lawn Fertilizers by Major Marketer, 2011



Total: $829.1 Million

Table 3A-8: U.S. Sales of Consumer Lawn Fertilizers by Major Marketer, 2011			
Brands	**Company**	**$ Thousand-a**	**% Of total**
Scotts, Miracle-Gro, Lawn Pro, Turf Builder, Organic Choice	Scotts	624,574	75.3
The Andersons, Fortify, Supreme Green, Nurserymen's Professional, American Green	The Andersons	30,450	3.7
Pro Care, Eliminator, Lilly Miller, Pennington	Central Garden & Pet	28,550	3.4
Ferti-Lome, Hi-Yield, American	Voluntary Purchasing Group	24,764	3.0
Greenview, Green Gold, Green Power, Turf Master	Lebanon Seaboard	18,113	2.2
Lawn Restore	Woodstream	16,000	1.9
Nursery Pro, All-Season, Shur Green	Howard Johnson	12,000	1.4
Premium Organic Lawn Foods	The Espoma Company	7,840	0.9
Spectracide	Spectrum Brands	7,080	0.9
All other	-	59,700	7.2
Total-a		**829,071**	**100.0**

a- Includes fertilizer-herbicide and fertilizer-insecticide products.

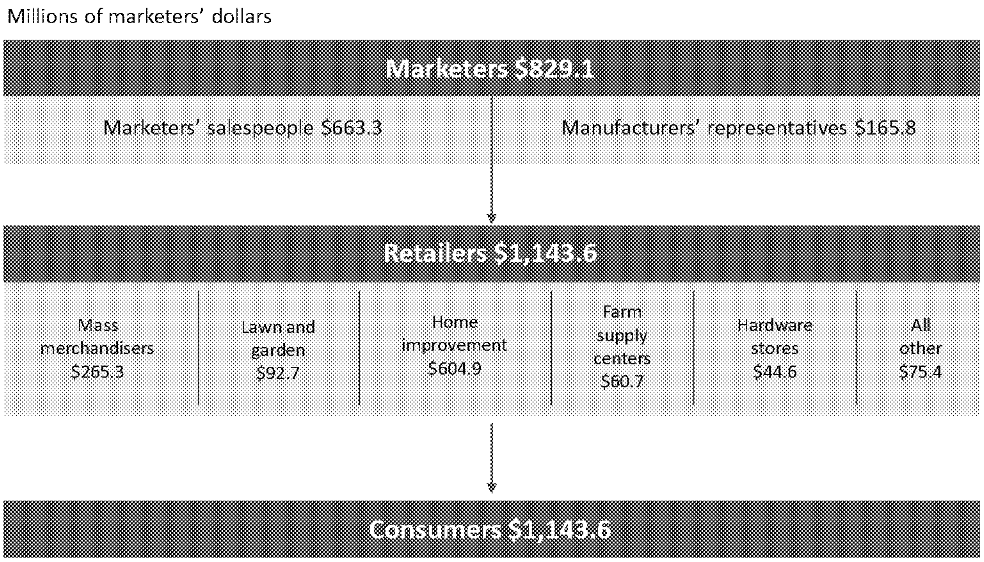
DISTRIBUTION CHANNELS

Marketers' own sales representatives are responsible for an estimated 80% of sales in 2011. Manufacturers' representatives account for the remainder. Approximately 78% of marketers' sales are made directly to retail accounts and 22% to distributors.

Home improvement centers are the leading retail outlets for lawn fertilizers, representing about 53% of sales. Mass merchandise stores account for 23%, followed by lawn and garden centers, hardware stores, and farm supply stores.

The channel data reflects the number of respondents that purchase the product category in each type of outlet. This historical method does not take into account the impact of income differences on channel revenue. To account for that impact, this analysis used the respondents with incomes of more than $50,000 per year to reflect the higher disposable incomes spent on lawn, garden, and home products, as well as larger lot sizes associated with these higher-income individuals. Both factors would tend to increase their spending per purchase. Kline & Company has not altered the tabulations shown in this section, but has used only the higher-income respondents to calculate distribution channel importance.

Figure 3A-2: Estimated U.S. Distribution of Consumer Lawn Fertilizers, 2011



PROMOTION

Marketing of lawn fertilizers has been characterized in recent years by an enormous diversity of promotional practices. Scotts has invested significantly in consumer advertising through television, magazines, and newspapers, in addition to rebate programs and various forms of trade promotions. In 2010, Scotts spent approximately $8 million to promote its Turf Builder line. This dropped to just over $5 million in 2011. Many other suppliers are increasingly using cooperative print advertising programs and more point-of-purchase displays aimed at providing the consumer with information concerning the benefits and proper use of a particular product. Coupons and rebates are still used by suppliers, but these remain unpopular among retailers and consumers, neither of whom like the follow-up effort and paperwork required.

OUTLOOK

Scotts has increased its dominant position in this product category, and concentration of buying power in the hands of the mass merchandisers, home improvement centers, and other large buying groups is forcing consolidation or exit of regional brands. With Scotts' market share expanding and the number of major retail buyers shrinking, competition among the regional suppliers has been intense. With Spectrum Brands dropping out of this market, Scotts and other suppliers have taken up the slack and now have more control over the market. Kmart and Walmart have been successful at establishing their own brands as the alternative, using contract packagers from among the regional competitors to do so.

Much of the growth in fertilizers over the past few years has been due to price increases and actual volumes have gone down. In the current reporting period, prices have dropped slightly, and the segment is still feeling the impact of the overall recession on consumer spending. It is anticipated that as the economy recovers, sales of lawn fertilizers will continue a steady growth rate in the future. In addition, there is becoming more emphasis on organic fertilizers, which will typically cost more than traditional fertilizers, which will aid in growing the consumer fertilizer market. Sales are projected to reach $924.4 million in 2016, representing an annual increase of 2.2% over 2011 sales of $829.1 million.

Table 3A-9: Outlook for Lawn Fertilizers to U.S. Consumer Market, 2011-2016

Year	$ Million	Average annual growth, %
2011	829.1	-
2016	924.4	2.2

3B. GARDEN FERTILIZERS

Sales in the garden fertilizers segment total $321.7 million in 2011, representing a $5.4 million decrease from the 2009 level of $327.1 million and an average annual decline of less than 1%.

As explained in the chapter on lawn fertilizers, the increasing concentration of retail sales of consumer lawn and garden products in the hands of mass merchandisers, home improvement centers, and other large buying groups has been driving a restructuring and consolidation of suppliers. Since the 2009 edition of this report was published, mergers and acquisitions have continued. Some of these new and changing business relationships affect the garden fertilizer segment.

Since the 2009 edition of this report was published, the following business activity has occurred that affects this segment:

- In early 2012, Howard Johnson's Enterprises, a Missouri-based manufacturer, marketer, and innovator of lawn and garden products for consumer and professional use, was acquired by Central Garden & Pet.
- In April 2012, Valent announced an agreement with The Scotts Company wherein Scotts will acquire certain assets of the Green Light Company, including trademarks for the Green Light brand Super Bloom.
- In January 2011, Lebanon Seaboard acquired the horticulture and turf division of Plant Health Care, Inc. This acquisition was done in order to increase the product range of Lebanon Seaboard in the golf course and landscape professional market.
- In March 2011, Israel Chemicals Ltd, an Israeli multinational fertilizer and specialty chemicals company, announced that they had completed the purchase of the Global Professional business segment from Scotts. The acquisition included the line of branded products including Osmocote, Sierrablend, and Peters Professional; a large sales and marketing force; R&D resources; as well as several factories and peat mines located in Holland, the United Kingdom, and the United States.
- In 2009, The Andersons, Inc. acquired the Fertilizer Division of Hartung Brothers, Inc., as an addition to their Plant Nutrient Group. The company also has completed the purchase of Immokalee Farmers Supply, Inc., Immokalee, FL, a specialty vegetable producer in Southwest Florida. The Immokalee Farmers Supply operations will be a part of The Andersons Plant Nutrient Group's Southern Region.

New product introductions in the reporting period include the following:

- In its 2012 catalog, VPG has introduced a number of new products. Under the Ferti-Lome brand, VPG has launched Garden Cote fertilizer, and HydroStretch soil amendment. Under the Natural Guard brand, VPG has recently launched Blood Meal, Bone Meal, Cottonseed Meal, Evergreen & Holly Food, Plant Food, Rose Food, and Tomato & Vegetable Food.
- In 2008, Espoma introduced a new product line for garden pesticides under the brand name Earth-tone. In the Earth-tone line, the company introduced Espoma Planting Mix and Espoma Organic Vermiculite in 2011.

PRODUCT DESCRIPTION

Garden fertilizers are used on flowers, vegetables, trees, shrubs, and other ornamental plantings. Both all-purpose and specialty fertilizers for popular plants, including roses, azaleas, rhododendrons, tomatoes, and fruit trees, are readily available. In general, garden fertilizers are high in phosphorus and potassium to encourage vigorous root and bloom development. Manure and other organic materials that supply nutrients are popular with gardeners and are included in this product category.

THE MARKET

Marketers' sales

Marketers' sales of garden fertilizers are estimated at $321.7 million in 2011, a 0.8% annual decrease from $327.1 million in 2009.

Table 3B-1: Sales of Garden Fertilizers to U.S. Consumer Market, 1999-2011

Year-a	$ Million	Average annual growth, %
1999	192.6	4.3
2001	262.9	18.3
2003	267.7	0.9
2005	294.9	5.1
2007	296.1	0.2
2009	327.1	5.2
2011	321.7	(0.8)

a- This study was not conducted in 2000, 2002, 2004, 2006, 2008, or 2010.

Sales by region

The South accounts for approximately 37% of all sales of garden fertilizers in 2011, followed by the Midwest.

Table 3B-2: Sales of Garden Fertilizers to Consumers, by Region, 2011

Region	$ Million	% Of total
South	118.1	36.7
Midwest	77.9	24.2
Northeast	65.6	20.4
West	60.1	18.7
Total	**321.7**	**100.0**

Retail shipments

Shipments of garden fertilizers to retail outlets are estimated at 326.9 million lb and 4.7 million gal of finished product in 2011.

Product form

Granular products are the leading form of garden fertilizers, accounting for approximately 44% of total sales in 2011. Liquid products and water-soluble products follow with $103.9 million and $48.9 million, respectively.

Table 3B-3: Sales of Garden Fertilizers to Consumers by Product Form and Volume, 2011

	Million			% Of total		
Product form	**Lb**	**Gal**	**$**	**Weight**	**Volume**	**Value**
Granular	217.7	-	139.9	66.6	-	43.5
Liquid	-	4.7	103.9	-	100.0	32.3
Water-soluble powder	60.3	-	48.9	18.4	-	15.2
All other-a	48.9	-	29.0	15.0	-	9.0
Total	**326.9**	**4.7**	**321.7**	**100.0**	**100.0**	**100.0**

a- Includes manures and other organic materials, time-release capsules, tablets, and spikes.

Product type

Straight fertilizers account for approximately 90% of sales in 2011. Combination fertilizer-pesticide products account for the remaining 10%. Fertilizer-herbicide products like Preen 'n Green and Miracle-Gro constitute the greatest portion of sales of combination fertilizers.

Table 3B-4: Sales of Garden Fertilizers to Consumers for Straight and Combined with Pesticides, 2011

	Million			% Of total		
Product type	**Lb**	**Gal**	**$**	**Weight**	**Volume**	**Value**
Straight-a,b	308.9	4.7	290.2	94.5	100.0	90.2
Combination-c	18.0	-	31.5	5.5	-	9.8
Total	**326.9**	**4.7**	**321.7**	**100.0**	**100.0**	**100.0**

a- Includes primary and secondary nutrients and trace elements.
b- Liquid organic products included under straight fertilizers.
c- Includes fertilizer-herbicide and fertilizer-insecticide products.

Product materials

Nitrogen, potash, and phosphates account for an estimated 40% of total poundage for garden fertilizers, including nutrients derived from manures. Most poundage for garden fertilizers represents carrier materials and the non-nutrient portion of manures.

Table 3B-5: Volume of Active Ingredients Used in Garden Fertilizers, 2011

Materials	Million lb	% Of total
Nitrogen	53.6	14.7
Potash	49.2	13.5
Phosphates	43.0	11.8
Other nutrients-a	11.7	3.2
Toxicants	0.1	b
All other-c	206.9	69.8
Total	**364.5**	**100.0**

a- Includes secondary nutrients and trace elements.
b- Less than 0.05%.
c- Includes carrier materials and manures.

Private-label activity

Sales of garden fertilizers manufactured under private labels are estimated at less than 8% of the market in 2011.

PRICES AND MARGINS

Retail margins for garden fertilizers tend to be higher than for lawn fertilizers, in part because of the importance of plant-specific formulations in this category and greater product differentiation. Margins at lawn and garden centers typically range from 35% to 45% for plant-specific fertilizers, and from 25% to 30% for dehydrated manures.

Table 3B-6: Retail Prices of Selected Consumer Garden Fertilizers in the United States, 2011

Brand	Marketer	Form	Size	Retail price, $
Holly Tone 4-6-4	Espoma	Granular	4 lb	7.38
Jobe's Tomato Fertilizer Spikes 6-18-6	Easy Gardener Products	Spikes	18 pack	3.99
Lilly Miller Bulb and Bloom 4-10-10	Central Garden and Pet	Granular	4 lb	4.13
Miracle-Gro All Purpose Plant Food 24-8-16	Scotts	Water-soluble	10 lb	17.88
Miracle-Gro Evergreen Spikes	Scotts	Spikes	12 pack	9.38
Miracle-Gro LiquaFeed All Purpose Plant Food Refills	Scotts	Liquid	4 pack	11.44
Miracle-Gro Shake 'n Feed All Purpose 10-10-10	Scotts	Granular	4.5 lb	14.48
Miracle-Gro Tree and Shrub Spikes	Scotts	Spikes	12 pack	9.38
Osmocote Flower and Vegetable Plant Food 14-14-14	Scotts	Granular	4.5 lb	14.99
Osmocote Outdoor and Indoor Plant Food 19-6-12	Scotts	Granular	3 lb	11.98
Preen Weed Preventer with Brilliant Blooms 9-17-9	Lebanon Seaboard	Granular	16 lb	30.36
Scotts All Purpose Flower and Vegetable Fertilizer 10-10-10	Scotts	Granular	3 lb	3.18
Scotts Slow Release Bulb Food 10-12-10	Scotts	Granular	3 lb	7.85
Vigoro All Purpose Plant Food 10-10-10	Spectrum Brands	Liquid	32 oz	5.48
Vigoro Rose Plant food 12-6-10	Spectrum Brands	Granular	3.5 lb	5.48

PACKAGING

Granular garden fertilizers are packaged in paperboard boxes, plastic bottles, canisters with shaker tops, multi-walled paper bags, and polyethylene bags. Manures and other solid organic fertilizers are packaged in polyethylene and paper bags. Paperboard boxes ranging in size from 2 lb to 30 lb and multi-walled paper bags ranging from 5 lb to 50 lb are most commonly used for solid plant-specific fertilizers. Liquid products of all kinds are typically packaged in plastic bottles from 8 oz up to 1/2 gal in size and spikes are usually presented in blister packs or sealed boxes.

Water-soluble products are typically packaged in paperboard boxes with an inner plastic bag or liner or in small plastic tubs. Hose-end garden fertilizers are sold with and without plastic hose-end spray applicators. Scotts also sells some products in 5 lb or 10 lb plastic pails. The contents of the 5 lb or 10 lb plastic pails from Scotts are packaged in pre-measured packets designed for use with the company's hose-end applicator. The total weight of the products remains the same.

COMPETITION

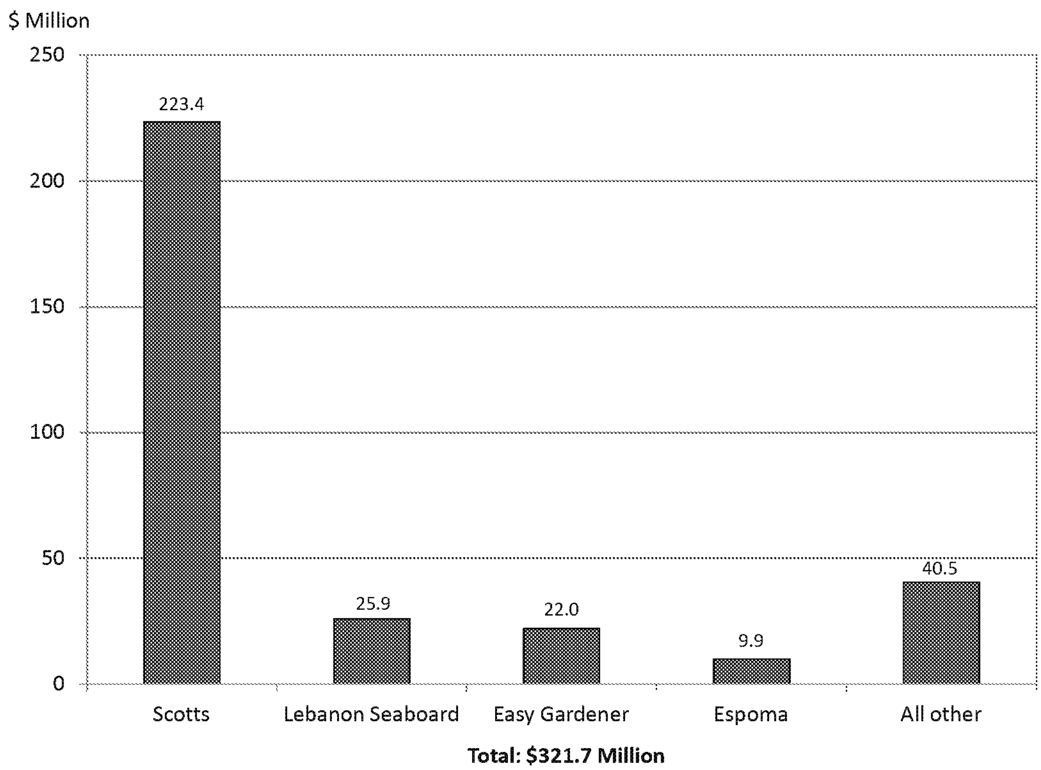
With the benefit of the acquisition of Stern's Miracle-Gro and Ortho brand products from Monsanto, Scotts has continued to maintain its lead position in 2011 as the dominant supplier of consumer garden fertilizers, now accounting for nearly 70% of total category sales. Lebanon Seaboard, through its Preen fertilizer product line, ranks a distant second with approximately 8% of the market. Easy Gardener ranks third with 6.2%, followed by Espoma with 3.1%.

After these companies, the market for garden fertilizers is fragmented and features a multitude of smaller suppliers, some of which are quite specialized.

Table 3B-7: U.S. Sales of Consumer Garden Fertilizers by Major Marketer, 2011

Brand	Company	$ Thousand	% Of total
Scotts, Hyponex, Osmocote, Miracle-Gro, Organic Choice	Scotts	221,398	68.8
Greenview, Green Gold Certified, Preen 'n Green	Lebanon Seaboard	25,875	8.0
Jobe's, Easy Gardener, Ross	Easy Gardener Products	20,000	6.2
Espoma, Tone, Earth-Tone	Espoma	9,880	3.1
Hoffman	Good Earth Horticulture	8,000	2.5
Concern, Safer	Woodstream	6,000	1.9
Nursery Pro	Howard Johnson	5,000	1.6
Ferti-Lome	Voluntary Purchasing Group	4,673	1.5
Schultz, Vigoro	Spectrum Brands	4,540	1.4
Fortify	The Andersons	4,060	1.3
Pennington, Lilly Miller	Central Garden & Pet	2,400	0.7
Bonide	Bonide	1,125	0.3
Green Light	Green Light	700	0.2
All other	-	8,000	2.5
Total		**321,651**	**100.0**

Figure 3B-1: U.S. Sales of Consumer Garden Fertilizers by Major Marketer, 2011

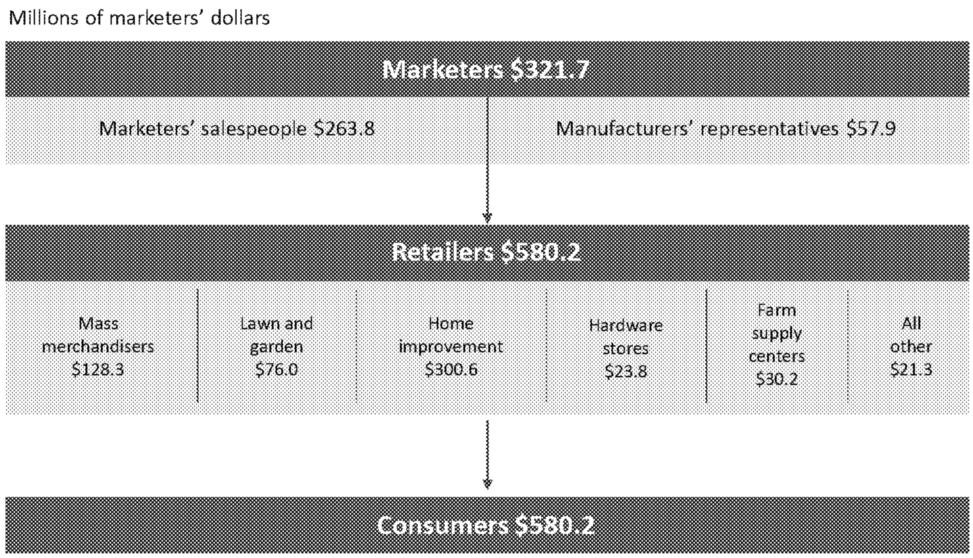


DISTRIBUTION CHANNELS

Marketers' own sales representatives are responsible for approximately 85% of garden fertilizer sales. Manufacturers' representatives account for the remaining 15%. Approximately 82% of manufacturers' sales are made directly to retail outlets and about 18% are to distributors.

Home improvement centers account for nearly 52% of sales of garden fertilizers in 2011, followed by mass-merchandising stores with about 22% of sales. Other significant retail outlets include lawn and garden centers, farm supply stores, and hardware stores.

Figure 3B-2: Estimated U.S. Distribution of Consumer Garden Fertilizers, 2011



The channel data reflects the number of respondents that purchase the product category in each type of outlet. This historical method does not take into account the impact of income differences on channel revenue. To account for that impact, this analysis used the respondents with incomes of more than $50,000 per year to reflect the higher disposable incomes spent on lawn, garden, and home products, as well as larger lot sizes associated with these higher-income individuals. Both factors would tend to increase their spending per purchase. Kline & Company has not altered the tabulations shown in this section, but has used only the higher-income respondents to calculate distribution channel importance.

PROMOTION

Scotts, the leading supplier in this product category, continues to spend extensively on advertising to promote Miracle-Gro brand, with about $15 million spent in 2010 and almost $14 million in 2011. The company firmly believes in creating consumer demand for its products through high visibility direct advertising, a strategy that is unusual in the lawn and garden industry but has proven quite successful. Scotts also relies on professional recommendations, print advertisements in consumer magazines and newspapers, and in-store merchandising.

Lebanon Seaboard provided almost $4.0 million in 2010 to promote its Preen brand and followed that up with $3.1 million in 2011. Easy Gardener Products focuses its efforts on rebates, supplementing these with regional spot radio advertisements. Several other major marketers do not specifically promote their garden products through advertising, and many smaller suppliers do no advertising to consumers at all, relying on trade promotions instead.

OUTLOOK

Over the long-term, the continued growth in sales of garden fertilizers has been due in part to Scotts' and other manufacturers' ability to attract new consumers to new formulations and packages such as hose-end products, water-soluble products, and the growing specialty organic fertilizers segment. Water-soluble fertilizers will continue to be the most popular form due primarily to their convenience and effective marketing.

The market for garden fertilizers has become more concentrated, with a higher proportion of sales attributable to fewer suppliers, but it will continue to support a number of specialty and regional brands, especially for the more generic manures. Total sales of garden fertilizers are projected to reach $358.7 million in 2016, an annual increase of 2.2%.

Table 3B-8: Outlook for Garden Fertilizers in Consumer Market 2011-2016

Year	$ Million	Average annual growth, %
2011	321.7	-
2016	358.7	2.2

3C. HOUSEPLANT FERTILIZERS

Sales of houseplant fertilizers total $62.8 million in 2011, an annual decrease of 3.1% from sales of $66.9 million in 2009.

Since the 2009 edition of this report was published, limited business activity has affected the houseplant fertilizers segment. In March 2011, Israel Chemicals Ltd, an Israeli multinational fertilizer and specialty chemicals company, announced that they had completed the purchase of the Global Professional business segment from Scotts. The acquisition included the line of branded products including Osmocote, Sierrablend, and Peters Professional; a large sales and marketing force; R&D resources; as well as several factories and peat mines located in Holland, the United Kingdom, and the United States.

The introduction of new products in the houseplant fertilizers segment has slowed. No new products of significance have been added since 2009.

PRODUCT DESCRIPTION

Houseplant fertilizers are used on potted plants, grown indoors for the most part. They are similar to lawn and garden fertilizer blends, but typically provide nitrogen, phosphorus, and potassium—the three basic elements in fertilizers—in lower concentrations or in time-release formulations. Houseplant fertilizers also often provide several trace elements beneficial to plant health. In addition to fertilizer blends, organic fertilizers based on fish, seaweed, and other materials are available. Plant-growth stimulants and similar products are also included in this category, although these are not legally defined as fertilizers. All-purpose products are the most popular, but specialty fertilizers for use on African violets, cacti, orchids, gardenias, and other plants are also widely sold. Houseplant fertilizers are also referred to as plant foods.

THE MARKET

Marketers' sales

Marketers' sales of houseplant fertilizers are estimated at $62.8 million in 2011, representing an annualized decrease of 3.1% from sales of $66.9 million in 2009.

Table 3C-1: Sales of Houseplant Fertilizers in U.S. Consumer Market, 1999-2011		
Year-a	**$ Million**	**Average annual growth, %**
1999	45.6	(0.1)
2001	47.7	2.3
2003	46.0	(1.8)
2005	51.5	6.0
2007	51.2	(0.3)
2009	66.9	15.3
2011	62.8	(3.1)

a- This study was not conducted in 2000, 2002, 2004, 2006, 2008, or 2010.

Sales by region

The South and Midwest account for almost 60% of the sales of houseplant fertilizers in 2011.

Table 3C-2: Sales of Houseplant Fertilizers in U.S. Consumer Market by Region, 2011		
Region	**$ Million**	**% Of total**
South	22.1	35.2
Midwest	15.0	23.9
West	11.9	19.0
Northeast	13.8	21.9
Total	**62.8**	**100.0**

Retail shipments

Shipments of houseplant fertilizers are estimated at 27.6 million lb and 800,000 gal of finished product in 2011.

Product form

Houseplant fertilizers are available in a variety of forms, including liquid concentrates and liquid ready-to-use (RTU) mixes, granules, powders, water-soluble solids, time-release capsules, and spikes. The popularity of product form varies based on marketing and promotional support by the manufacturer. Sales of fertilizer spikes, which were once the product of choice, declined several years ago but have since rebounded a bit, partly due to renewed interest in spike products among some manufacturers. Granular and liquid products are the two leading product forms in 2011, followed closely by spikes, and water-soluble powders.

Table 3C-3: Sales of Houseplant Fertilizers in U.S. Consumer Market by Product Form, 2011						
	Million			% Of total		
Product form	Lb	Gal	$	Weight	Volume	Value
Liquid	-	0.8	20.8	-	100.0	33.2
Granular and other solids	16.3	-	18.7	59.1	-	29.7
Spike	1.9	-	11.9	6.9	-	18.9
Water-soluble powder	9.4	-	11.4	34.9	-	18.1
Total	**27.6**	**0.8**	**62.8**	**100.0**	**100.0**	**100.0**

Product type

Houseplant fertilizer products are virtually all straight fertilizers. Fertilizer-insecticide combination products are not currently a factor in this segment. Scotts and Easy Gardener formerly had combination fertilizer spike products that have been phased out.

Product materials

Primary nutrients account for about 36% of the total weight for houseplant fertilizers.

Table 3C-4: Volume of Active Ingredients for Houseplant Fertilizers in U.S. Consumer Market, 2011		
Materials	Million lb	% Of total
Nitrogen	5.9	17.6
Potash	4.2	12.5
Phosphates	2.7	8.1
Other nutrients	0.3	0.9
All other-a	20.4	60.9
Total	**33.5**	**100.0**

a- Includes carrier materials and inert ingredients.

Private-label activity

Private-label houseplant fertilizers account for an estimated 10% of marketers' sales in this product category. Kmart, which does not manufacture any of its consumer pesticides and fertilizers, is the largest marketer of private-label houseplant fertilizers. Contract production represents roughly one-third of total sales.

PRICES AND MARGINS

Retail margins for houseplant fertilizers normally average between 30% and 40% at most retail outlets. Nevertheless, prices for individual products can vary significantly from store to store depending on the type of retail outlet.

Table 3C-5: Retail Prices of Selected Consumer Houseplant Fertilizers in the United States, 2011

Brand	Marketer	Form	Size	Retail price, $
Jobe's Houseplant Food Spikes 13-4-5	Easy Gardener Products	Spike	50 spikes	1.49
Miracle-Gro All Purpose Plant Food 24-8-16	Scotts	Water-soluble	5.0 lb	9.88
Miracle-Gro Indoor Plant Spikes 6-12-6	Scotts	Spikes	1.1 oz	1.78
Miracle-Gro Houseplant Food 8-7-6	Scotts	Liquid	8.0 fl oz	2.98
Miracle-Gro African Violet Food 7-7-7	Scotts	Liquid	8.0 fl oz	2.98
Osmocote Outdoor and Indoor Plant Food 19-6-12	Scotts	Granular	3.0 lb	11.98
Shultz African Violet Plus Liquid Plant Food	Spectrum Brands	Liquid	8.0 fl oz	3.99
Vigoro All Purpose Plant Food 10-10-10	Spectrum Brands	Liquid	32 fl oz	5.48

PACKAGING

Fertilizer spikes are sold in blister packs ranging in size from 0.5 oz to 4.5 oz, depending on the size of the pot they are intended for and the length of time the spikes last. Liquid fertilizers are sold in plastic bottles ranging from 4 oz to 32 oz. Liquid concentrates are often packaged in bottles with an eyedropper top or other applicator or measuring device. Water-soluble powders and granules are packaged in paperboard boxes with polyethylene liners or plastic inner containers (usually small tubs with fitted lids). A small measuring spoon or scoop is often included. Time-release capsules and related products are usually packaged in plastic bottles ranging in size from 8 oz to 4 lb.

COMPETITION

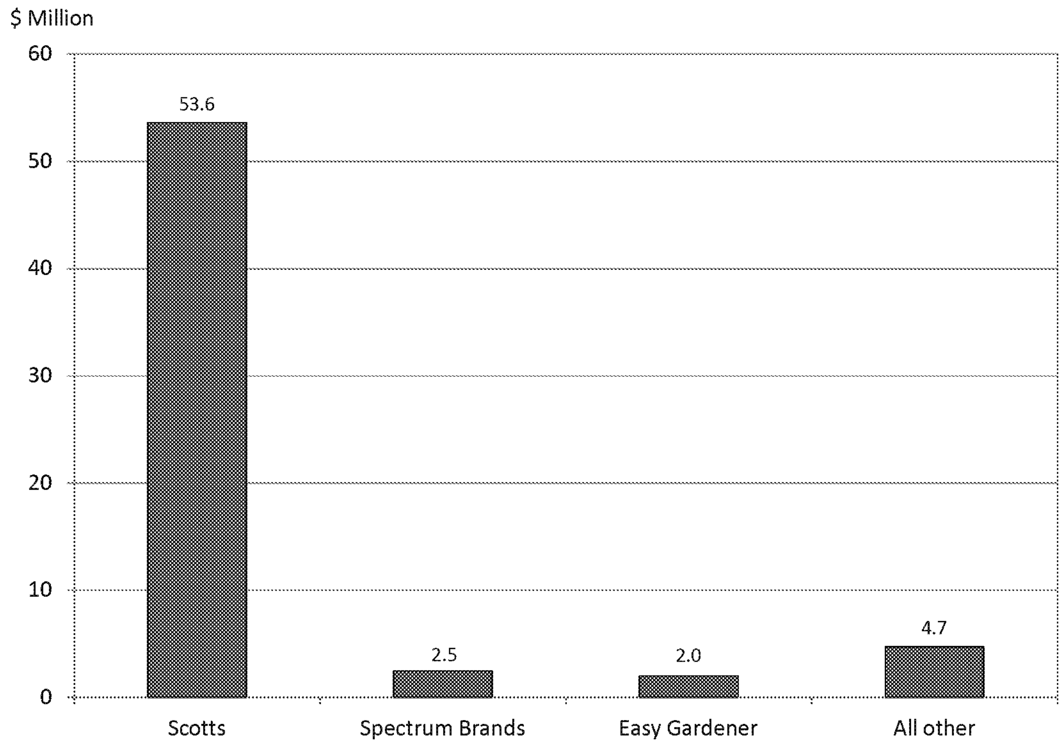
Scotts has further maintained its position in 2011 as the leading supplier of consumer houseplant fertilizers, now accounting for more than 85% of total category sales. The remainder of the market consists of smaller suppliers.

Table 3C-6: Sales of Houseplant Fertilizers to U.S. Consumer Market by Marketer, 2011

Brand	Company	$ Thousand	% Of total
Scotts, Osmocote, Miracle-Gro	Scotts	53,602	85.3
Schultz	Spectrum Brands	2,540	4.0
Jobe's	Easy Gardener Products	2,000	3.2
All other-a	-	4,700	7.5
Total		**62,842**	**100.0**

a- Includes Lilly Miller, Good Earth Horticulture, and other brands.

Figure 3C-1: U.S. Sales of Consumer Houseplant Fertilizers by Major Marketer, 2011



Total: $62.8 Million

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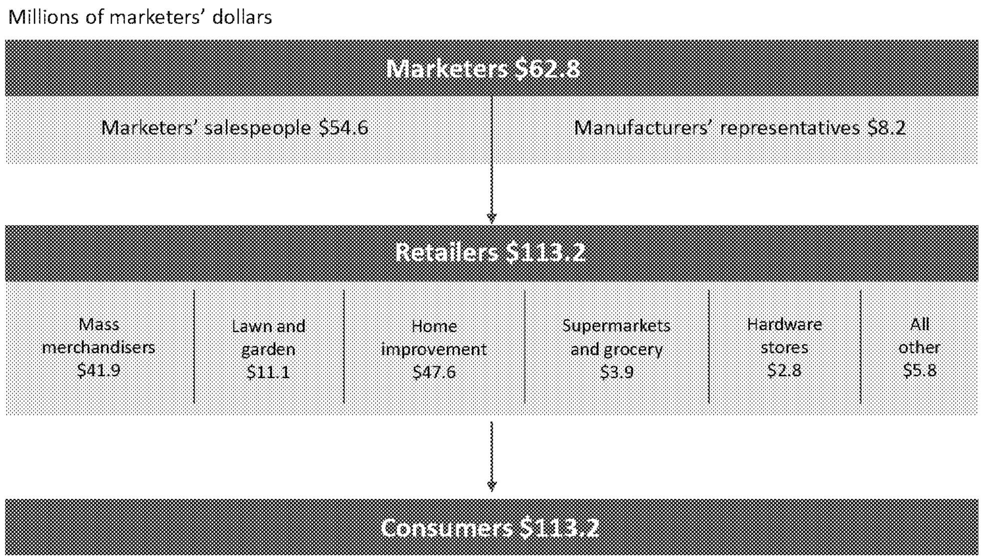
DISTRIBUTION CHANNELS

More than 86% of marketers' sales are made by company sales representatives in 2011. Approximately 82% of sales of consumer houseplant fertilizers are made directly to retail outlets, with about 18% going through distributors.

Home improvement centers are the leading retail outlets for houseplant fertilizers, accounting for approximately 42% of total sales. Mass merchandise stores follow with approximately 22% of sales.

Figure 3C-2: Estimated U.S. Distribution of Consumer Houseplant Fertilizers, 2011



The channel data reflects the number of respondents that purchase the product category in each type of outlet. This historical method does not take into account the impact of income differences on channel revenue. To account for that impact, this analysis used the respondents with incomes of more than $50,000 per year to reflect the higher disposable incomes spent on lawn, garden, and home products, as well as larger lot sizes associated with these higher-income individuals. Both factors would tend to increase their spending per purchase. Kline & Company has not altered the tabulations shown in this section, but has used only the higher-income respondents to calculate distribution channel importance.

PROMOTION

Advertising of houseplant fertilizers to consumers tends to be either subordinated within advertising for a larger line of products or limited. Scotts generally supports its brands with a significant advertising campaign using celebrity spokespeople.

OUTLOOK

Interest in houseplants among consumers has been stable with most growth over the past few years coming from price increases. Many consumers have come to view houseplants as disposable items, as inexpensive plants have become widely available in supermarkets and mass-merchandise outlets, a trend that lack of plant-care knowledge has inadvertently reinforced.

Total sales of houseplant fertilizers over the next five years are expected to show small but continued growth, primarily through price increases and promotion from the leading suppliers. The number of consumers using these products may not increase significantly, and gains in market share will mostly come at the expense of other suppliers, with manufacturers of liquid and spike products likely to continue to do best. Total sales of houseplant fertilizers are projected to increase by 2.2% per year.

Table 3C-7: Outlook for Houseplant Fertilizers for U.S. Consumer Market, 2011-2016

Year	$ Million	Average annual growth, %
2011	62.8	-
2016	70.0	2.2

4. HERBICIDES

COVERAGE

This section covers the following products:

- 4A. Lawn Herbicides
- 4B. Garden and Nonselective Herbicides

Fertilizer-herbicide combination products are covered in the fertilizers chapter of this report.

THE MARKET

Marketers' sales

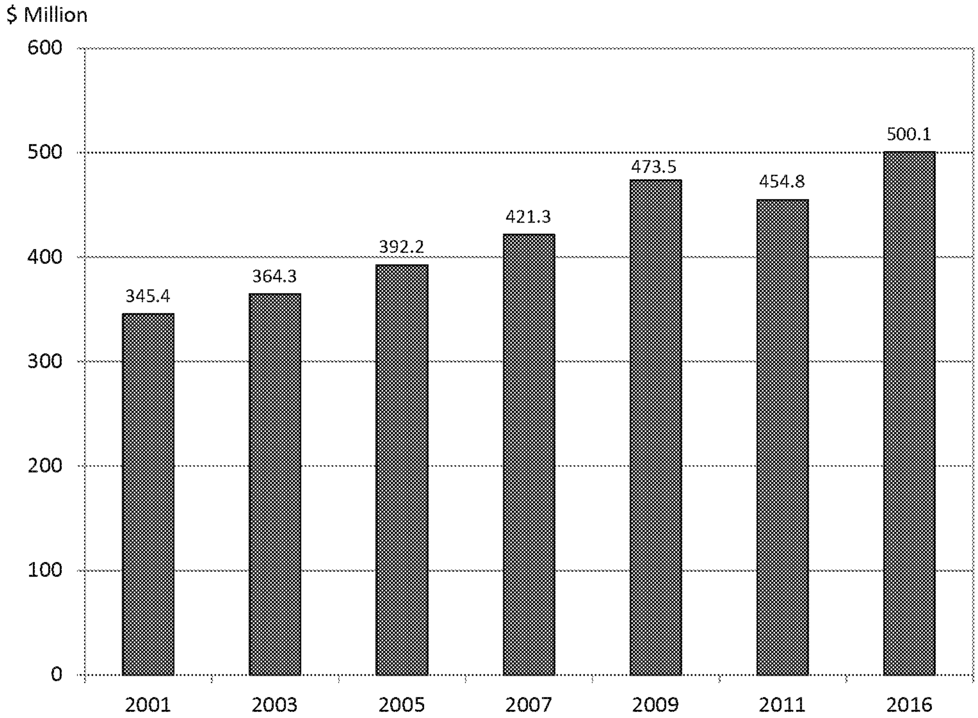
The market for consumer herbicides decreases by 2.2% annually from 2009 sales of $473.5 million to an estimated $452.8 million at the marketers' level in 2011.

Table 4-1: Sales of Herbicides to the U.S. Consumer Market, 1999-2011

Year-a	$ Million	Average annual growth, %
1999	306.6	6.8
2001	345.4	6.3
2003	364.3	2.7
2005	392.2	3.8
2007	421.3	3.6
2009	473.5	6.2
2011	452.8	(2.2)

a- This study was not conducted in 2000, 2002, 2004, 2006, 2008, or 2010.

Figure 4-1: Total Herbicide Category Sales, 2001 to 2016



Total: $452.8 Million

Sales by region

The South is the largest-consuming region for herbicide sales, with approximately 38% in 2011, followed by the Midwest with nearly 24%.

Table 4-2: Sales of Herbicides to the U.S. Consumer Market by Region, 2011

Region	$ Million	% Of total
South	172.0	38.0
Midwest	107.3	23.7
West	86.5	19.1
Northeast	86.9	19.2
Total	**452.8**	**100.0**

Retail shipments

Shipments of consumer herbicides are estimated at 72.5 million lb and 31.7 million gal of formulated product in 2011.

Product form

Liquid products account for approximately 87% of total sales in 2011.

Table 4-3: Sales of Herbicides to the U.S. Consumer Market by Product Form, 2011				
	Million			
Product form	**Lb**	**Gal**	**$**	**% Of total value**
Liquid	-	31.7	393.3	86.9
Solid-a	72.5	-	59.4	13.1
Total	**72.5**	**31.7**	**452.8**	**100.0**

a- Includes wettable powders.

Product type

Nonselective herbicides account for approximately 49% of total sales, while lawn and garden herbicides account for approximately 51%.

Table 4-4: Sales of Herbicides to the U.S. Consumer Market by Market Segment, 2011		
Application	**$ Million**	**% Of total**
Nonselective	222.5	49.1
Lawn	160.5	35.5
Garden	69.7	15.4
Total	**452.8**	**100.0**

Active ingredients

Glyphosate constitutes approximately 40% of the total active ingredient weight in consumer herbicides in 2011. The remaining weight is divided among several active ingredients.

Table 4-5: Volume of Active Ingredients Use in Herbicides in the U.S. Consumer Market, 2011		
Active ingredient	**Million lb**	**% Of total**
Glyphosate	5.1	39.8
2,4-D	2.3	18.0
MCPA	1.3	10.2
Pelargonic acid	1.0	7.8
Trifluralin	0.7	5.5
MCPP	0.7	5.5
Dicamba	0.3	2.3
Quinclorac	0.3	2.3
Diquat	0.2	1.6
Triclopyr	0.1	0.8
Prometon	0.1	0.8
Diflufenzopyr	0.1	0.8
All other-a	0.6	4.7
Total	**12.6**	**100.0**

a- Includes benefin, dithopyr, imazapic, and atrazine, among other ingredients.

NOTE: An additional 12.4 million lb of active ingredient is reported in the fertilizer section as herbicide-fertilizer combinations.

ACQUISITIONS, DIVESTITURES, AND NEW PRODUCTS

The following business development activity has occurred in this segment since 2009:

- In April 2012, Valent announced an agreement with The Scotts Company wherein Scotts will acquire certain assets of the Green Light Company, including trademarks for the Green Light brand Amaze Grass & Weed Preventer2.
- In early 2012, Howard Johnson's Enterprises, a Missouri-based manufacturer, marketer, and innovator of lawn and garden products for consumer and professional use, was acquired by Central Garden & Pet.
- In July 2011, MAI announced that it would combine the activities of Quali-Pro, its Raleigh, NC-based brand focused on turf and ornamental products, with Control Solutions. The integration of Quali-Pro with Control Solutions is intended toward attaining a more comprehensive portfolio of effective products in the environmental solutions market.

- In March 2011, Israel Chemicals Ltd, an Israeli multinational fertilizer and specialty chemicals company, announced that they had completed the purchase of the Global Professional business segment from Scotts. The acquisition included the line of branded products including Osmocote, Sierrablend, and Peters Professional; a large sales and marketing force; R&D resources; as well as several factories and peat mines located in Holland, the United Kingdom, and the United States.
- In January 2011, Lebanon Seaboard acquired the horticulture and turf division of Plant Health Care, Inc. This acquisition was done in order to increase the product range of Lebanon Seaboard in the golf course and landscape professional market.

New product introductions in this segment include the following:

- In its 2012 catalog, VPG introduced, under the Hi-Yield brand, Nutsedge Control, and Ornamental Weed Preventer. Under the Natural Guard brand, VPG has recently launched Organic Spot Weeder.
- Bayer launched a number of herbicides based on the newly registered active ingredient indaziflam for weed control on golf courses, sports grounds, railroad tracks and roadways. Bayer also expanded the naturally derived Natria product line the In the consumer business.
- PBI Gordon launched a low odor variant of Trimec in late 2010 for broad leaf weeds.
- In 2009, Pennington introduced a new brand—Signature series fertilizer for the U.S. market—and in early 2010—Knockout insecticides and herbicides.

COMPETITION

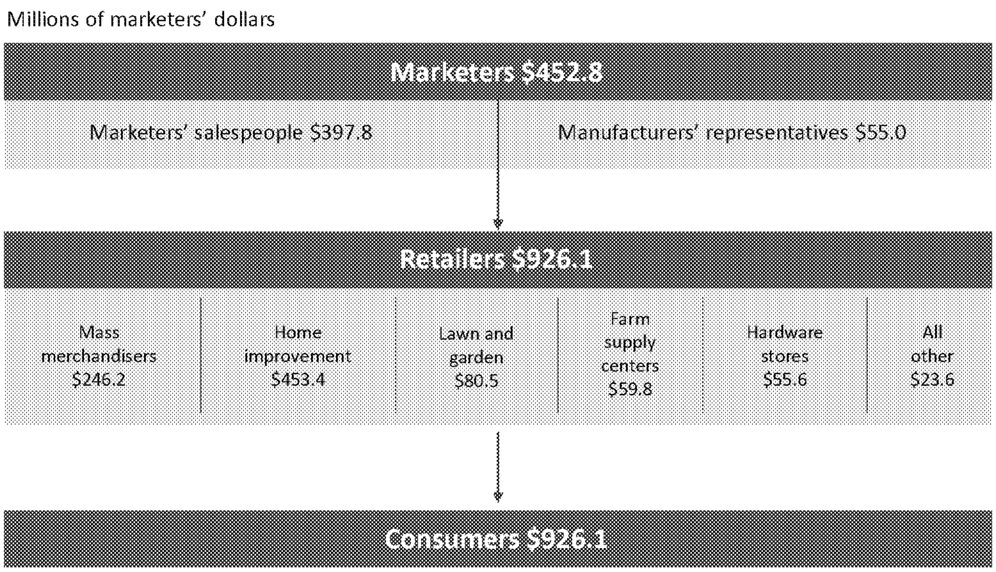
The Scotts Miracle-Gro Company, the largest supplier of consumer herbicides, accounts for 55.9% of the total market in 2011. Spectrum Brands ranks a distant second with 11.7%, followed by Lebanon Seaboard with 9.3%.

DISTRIBUTION CHANNELS

Approximately 88% of sales are made by marketers' own sales representatives and 12% by manufacturers' representatives.

Table 4-6: U.S. Sales of Consumer Herbicides by Major Marketer, 2011		
Company	**$ Thousand**	**% Of total**
The Scotts Miracle-Gro Company	253,220	55.9
Spectrum Brands	53,100	11.7
Lebanon Seaboard Corp.	42,262	9.3
PBI/Gordon	24,700	5.5
Central Garden & Pet	22,350	4.9
Bayer	14,107	3.1
Voluntary Purchasing Groups	8,492	1.9
Control Solutions	6,000	1.3
Green Light Company	4,900	1.1
Monterey Lawn & Garden	3,300	0.7
Bonide Products	4,500	1.0
The Andersons	4,060	0.9
Southern Agricultural	2,200	0.5
Value Garden Supply	2,100	0.5
Zep, Inc.	485	0.1
St. Gabriel Organics	563	0.1
All other	6,500	1.4
Total	**452,839**	**100.0**

Figure 4-2: Estimated U.S. Distribution of Consumer Lawn, Garden, and Nonselective Herbicides, 2011



Kline

The channel data reflects the number of respondents that purchase the product category in each type of outlet. This historical method does not take into account the impact of income differences on channel revenue. To account for that impact, this analysis used the respondents with incomes of more than $50,000 per year to reflect the higher disposable incomes spent on lawn, garden, and home products, as well as larger lot sizes associated with these higher-income individuals. Both factors would tend to increase their spending per purchase. Kline & Company has not altered the tabulations shown in this section, but has used only the higher-income respondents to calculate distribution channel importance.

Home improvement centers and mass merchandise stores are the leading retail outlets for herbicides, accounting for 49% and 27% of sales, respectively.

Table 4-7: Sales of Herbicides to the U.S. Consumer Market by Retail Outlet Type, 2011

Retail outlet	$ Million	% Of total
Home improvement centers	453.4	49
Mass merchandise stores	246.2	27
Lawn and garden centers-a	80.5	9
Farm supply stores	59.8	6
Hardware stores	55.6	6
All other-b	30.6	3
Total	**926.1**	**100**

a- Includes retail nurseries.
b- Includes supermarkets and grocery stores, warehouse clubs, mail order sales, and other retail outlets.

OUTLOOK

Sales of herbicides will continue to increase at a moderate rate. Consumer concern about the use of pesticides, the convenience of combination fertilizer-herbicide products, and the increasingly popular practice of spot-treating weeds in turf seem to have limited impact on this segment. However, general economic trends are expected to influence the next five years and only modest growth is forecast. Total sales are projected to reach $500.1 million in 2016, an annual increase of approximately 2.0%.

Table 4-8: Outlook for Herbicides to the U.S. Consumer Market, 2011-2016		
Year	**$ Million**	**Average annual growth, %**
2011	452.8	-
2016	500.1	2.0

4A. LAWN HERBICIDES

Marketers' sales of lawn herbicides are estimated at $160.6 million in 2011, an annualized increase of 2.7% from sales of $152.4 million in 2009.

The following business development activity has occurred in this segment since 2009:

- In April 2012, Valent announced an agreement with The Scotts Company wherein Scotts will acquire certain assets of the Green Light Company, including trademarks for the Green Light brand Amaze Grass & Weed Preventer2.
- In early 2012, Howard Johnson's Enterprises was acquired by Central Garden & Pet, a Missouri-based manufacturer, marketer, and innovator of lawn and garden products for consumer and professional use.
- In March 2011, Israel Chemicals Ltd, an Israeli multinational fertilizer and specialty chemicals company, announced that they had completed the purchase of the Global Professional business segment from Scotts. The acquisition included the line of branded products including Osmocote, Sierrablend, and Peters Professional; a large sales and marketing force; R&D resources; as well as several factories and peat mines located in Holland, the United Kingdom, and the United States.
- In January 2011, Lebanon Seaboard acquired the horticulture and turf division of Plant Health Care, Inc. This acquisition was done in order to increase the product range of Lebanon Seaboard in the golf course and landscape professional market.
- In 2009, Lebanon Seaboard acquired the turf and landscape business from Novozymes.
- In December 2009, Monterey AgResources was acquired by Brandt Consolidated, Inc.

New product introductions in this segment include the following:

- In its 2012 catalog, VPG introduced Nutsedge Control, and Ornamental Weed Preventer under the Hi-Yield brand. Under the Natural Guard brand, VPG has recently launched Organic Spot Weeder.
- PBI Gordon launched a low odor variant of Trimec in late 2010 for broad leaf weeds.
- Bayer launched a number of herbicides based on the newly registered active ingredient indaziflam for weed control on golf courses, sports grounds, railroad tracks, and roadways. Bayer also expanded the naturally derived Natria product line the in the consumer business.

Regulatory factors have also been threatening to negatively impact this consumer market for some time. In June 1991, the Supreme Court ruled that the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) does not preempt pesticide regulation by local governments. Therefore, states and municipalities are able to pass legislation concerning application of herbicides and other pesticides.

PRODUCT DESCRIPTION

Lawn herbicides are used to kill crabgrass and dandelions and other broadleaf weeds in turf. Preemergence products act on seedlings and prevent weeds from developing. Postemergence products kill weeds after they appear. The vast majority of herbicides marketed for consumer use are postemergence products. Herbicides are available as ready-to-use (RTU) and concentrated liquids, granules, and wettable powders.

THE MARKET

Marketers' sales

Marketers' sales of lawn herbicides are estimated at $160.6 million in 2011, an annualized increase of 2.7% from 2009 sales of $152.4 million.

Table 4A-1: Sales of Lawn Herbicides to the U.S. Consumer Market, 1999-2011

Year-a	$ Million	Average annual growth, %
1999	78.1	20.4
2001	97.0	12.1
2003	98.6	0.8
2005	112.8	7.9
2007	135.6	10.0
2009	152.4	6.2
2011	160.6	2.7

a- This study was not conducted in 2000, 2002, 2004, 2006, 2008, or 2010.

Sales by region

The South accounts for the largest percentage of lawn herbicide sales, followed by the Midwest.

Table 4A-2: Sales of Lawn Herbicides to the U.S. Consumer Markets by Region, 2011		
Region	**$ Million**	**% Of total**
South	61.0	38.0
Midwest	40.1	25.0
West	28.9	18.0
Northeast	30.5	19.0
Total	**160.6-a**	**100.0-a**

a- Does not add due to rounding.

Retail shipments

Retail shipments of lawn herbicides are estimated at 26.5 million lb and 6.7 million gal of formulated product in 2011.

Product form

Liquids are the most popular form of lawn herbicides, accounting for approximately 90% of sales in 2011. Granular products rank second with 8%.

Table 4A-3: Sales of Lawn Herbicides to the U.S. Consumer Market by Product Form, 2011

	Million			**% Of total**		
Product form	**Lb**	**Gal**	**$**	**Weight**	**Volume**	**Value**
Liquid	-	6.7	144.5	-	100	90
Granular	25.0	-	12.8	94	-	8
All other-a	1.5	-	3.2	6	-	2
Total	**26.5**	**6.7**	**160.5**	**100**	**100**	**100**

a- Includes dusts and wettable powders.

Active ingredients

2,4-D, MCPA, and MCPP are the most widely used active ingredients in consumer lawn herbicides, mostly in combination with other actives. Triclopyr and dicamba are also important, with dicamba particularly unique in its popularity in three-way and four-way mixes with other active ingredient materials mentioned.

Table 4A-4: Volume of Active Ingredients Used in Lawn Herbicides in the U.S. Consumer Market, 2011

Active ingredients	Thousand lb	% Of total
2,4-D	2,308	43.2
MCPA	1,318	24.6
MCPP	667	12.5
Dicamba	312	5.8
Quinclorac	250	4.7
Triclopyr	132	2.5
Diflufenzopyr	132	2.5
All other-a	223	4.2
Total	**5,342**	**100.0-b**

a- Includes atrazine, sulfentrazone, carfentrazole, trifluraline, dithopyr, isoxaben, pendimethalin and benfluralin, among others.
b- Does not add due to rounding.

NOTE: See Chapter 3A for additional active ingredients combined with fertilizer.

Private-label activity

Private-label and contract package manufacturing account for approximately 20% of total sales. Kmart and Walmart are the largest marketers of products manufactured by others.

PRICES AND MARGINS

Retail margins on lawn herbicides typically average 40%, although mass merchandise stores and home improvement centers promote these products at lower margins during seasonal sales events.

Table 4A-5: Retail Prices of Selected Consumer Lawn Herbicides in the United States, 2011

Brand	Marketer	Form	Size	Retail price, $
Bayer Advanced Southern Season Long Weed Control Ready To Spray	Bayer	Liquid	32 fl oz	19.97
Ortho Weed-B-Gon MAX Concentrate Plus Crabgrass Control	Scotts	Liquid	1.0 qt	9.47
Scotts Halts Crabgrass Preventer	Scotts	Granular	10 lb	14.44
Ortho Weed-B-Gon MAX + Crabgrass RTU	Scotts	Liquid	1.33 gal	18.98
Ortho Weed-B-Gon MAX Weed Killer for Lawns Concentrate	Scotts	Liquid	0.5 gal	71.94
Bayer Advanced Lawn All-in-One Weed Killer Ready to Spray	Bayer	Liquid	32 fl oz	11.44
Preen Lawn Broadleaf Weed Control	Lebanon	Granular	30.00 lb	32.10
Spectracide WeedStop for Lawns Ready to Spray	Spectrum Brands	Liquid	32 fl oz	6.97
Ace Lawn Weed Killer	Ace	Liquid	32 fl oz	7.49
Image Herbicide Concentrate	Central Garden & Pet	Liquid	24 fl oz	20.77
Green Light Crabgrass Preventer with Dimension	Green Light	Granular	10 lb	14.93

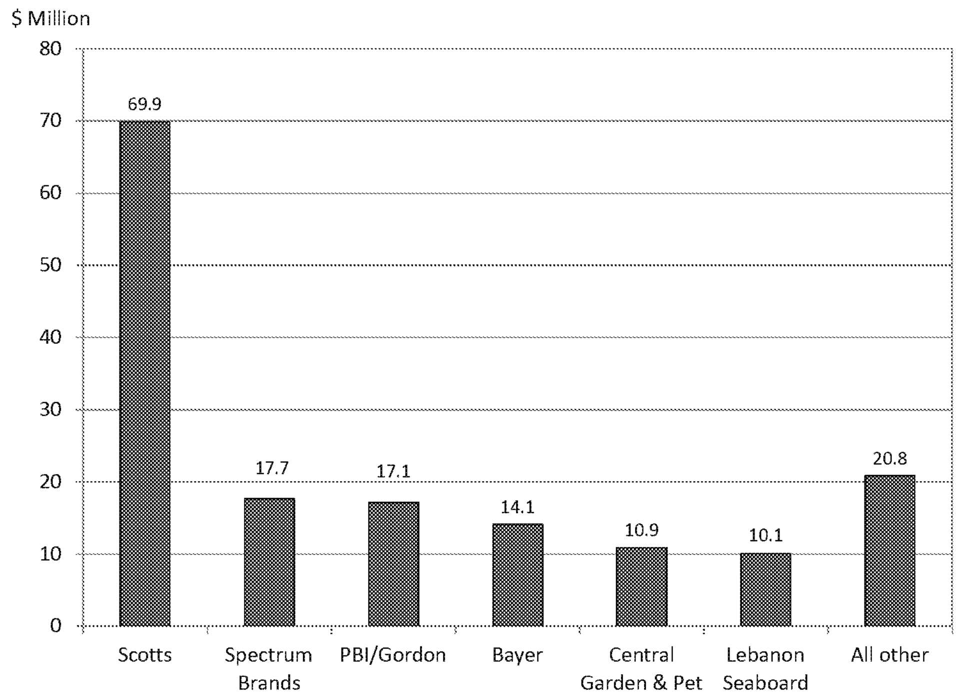
PACKAGING

Granular herbicides are generally sold in polyethylene (PE) bags or paper bags with PE liners. Liquid concentrates are packaged in containers made of plastic, glass, and occasionally metal, ranging in size from 8 fl oz to 128 fl oz. Liquid RTU products are generally packaged in plastic bottles with pump-spray tops or hose-end attachments. Aerosols are packaged in metal canisters.

COMPETITION

Scotts and Ortho products account for approximately 44% of the consumer lawn herbicide market in 2011. Spectrum Brands ranks a distant second with 11.0% of total sales, followed by PBI/Gordon with 10.7%. Scotts continues to increase their share while growing the market. The rest of the market is split among a number of smaller suppliers.

Figure 4A-1: U.S. Sales of Consumer Lawn Herbicides by Major Marketer, 2011



Total: $160.6 Million

Table 4A-6: U.S. Sales of Consumer Lawn Herbicides by Major Marketer, 2011

Brand(s)	Company	$ Thousand	% Of total
Ortho, Scotts	Scotts	69,915	43.5
Spectracide	Spectrum Brands	17,700	11.0
Acme, Gordon's, Trimec	PBI/Gordon	17,100	10.7
Bayer Advanced	Bayer	14,107	8.8
Image, Maxide, Lilly Miller	Central Garden & Pet	10,900	6.8
Preen, Greenview	Lebanon Seaboard	10,100	6.3
Ferti-Lome	Voluntary Purchasing Group	4,246	2.6
Monterey	Monterey	3,300	2.1
Fortify, American Green, Easy Weeder	The Andersons	2,842	1.8
Green Light	Green Light	2,600	1.6
Bonide	Bonide Chemical	2,250	1.4
Southern Ag	Southern Agricultural Insecticides	1,200	0.7
Gardener's Choice, Dexol	Value Garden Supply	300	0.2
All other-a	-	4,000	2.5
Total		**160,560**	**100.0**

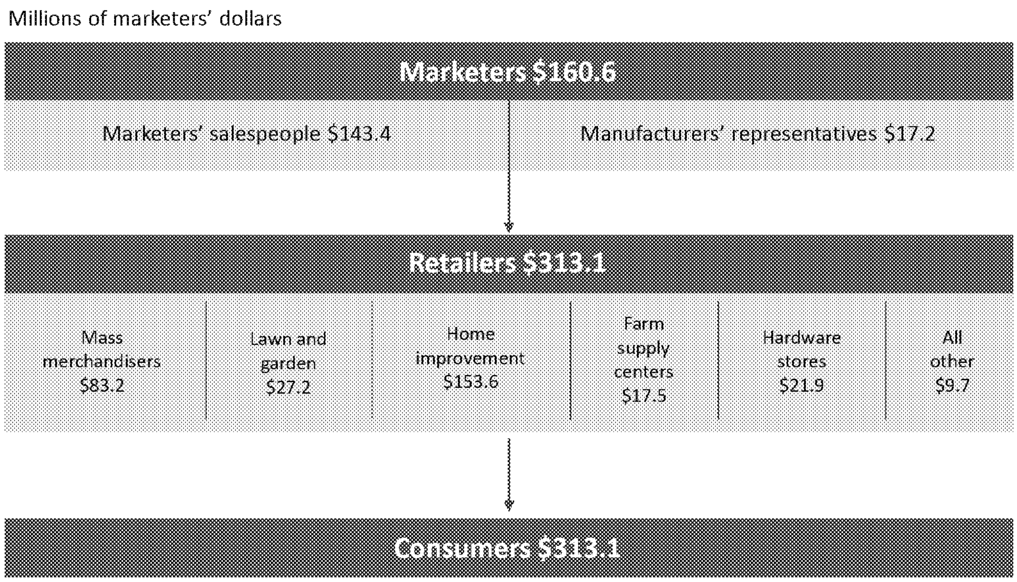
a- Includes various small marketers with limited lawn herbicide sales.

DISTRIBUTION CHANNELS

Lawn herbicides are sold primarily by company sales representatives directly to large retailers. Direct sales to retail outlets are estimated to represent 88% of the total, with sales through reps accounting for the balance.

Home improvement centers and mass-merchandise stores are the most important retail outlets for lawn herbicides, with home improvement centers accounting for about 49% of sales, and mass-merchandise stores representing 27% of sales. Lawn and garden centers, hardware stores, and farm supply stores are also significant outlets for these products.

Figure 4A-2: Estimated U.S. Distribution of Consumer Lawn Herbicides, 2011



The channel data reflect the number of respondents that purchase the product category in each type of outlet. This historical method does not take into account the impact of income differences on channel revenue. To account for that impact, this analysis used the respondents with incomes of more than $50,000 per year to reflect the higher disposable incomes spent on lawn, garden, and home products, as well as larger lot sizes associated with these higher-income individuals. Both factors would tend to increase their spending per purchase. Kline & Company has not altered the tabulations shown in this section, but has used only the higher-income respondents to calculate distribution channel importance.

PROMOTION

The consumer lawn and garden market has undergone a major change over the past few years with the sharp decline in the number of independent retailers and the concurrent increase in the number of mass marketers and home improvement centers. Currently, it is estimated that 75% of the business is done through large retailers, with many manufacturers now selling to them directly.

In many cases, advertisements for herbicide products are part of a general campaign promoting the entire product line rather than lawn herbicides specifically. Cooperative advertising programs and trade show participation are also used for the promotion of an overall line. Smaller regional marketers typically rely on cooperative advertising programs with retailers and distributors.

The primary traceable advertiser in the category is The Scotts Miracle-Gro Company, which spent $35 million in 2010 and $25 million in 2011 for all products, virtually all on television advertising. Over $3 million was spent on Weed-B-Gon for the two years combined. Bayer Advanced spent slightly less than $3 million for the two years combined for its Season Long Weed Killer products.

OUTLOOK

Sales of lawn herbicides, like insecticides, are affected from year to year by weather conditions in key regions of the country. The consumer's desire to keep the home lawn free of weeds seems to remain an important factor, as this market segment continues to see growth. The corresponding growth in sales of combination fertilizer-herbicide products also supports this.

Sales of lawn herbicides are expected increase at a modest rate through 2016. This is mainly due to the overall economic climate, and in particular, the slowdown in housing starts. Sales are projected to reach approximately $177.3 million in 2016, an annual compound increase of 2.0%.

Table 4A-7: Outlook for Lawn Herbicides in the U.S. Consumer Market, 2011-2016

Year	$ Million	Average annual growth, %
2011	160.6	-
2016	177.3	2.0

4B. GARDEN AND NONSELECTIVE HERBICIDES

Marketers' sales of garden and nonselective herbicides are estimated at $292.4 million in 2011, an annualized decrease of 4.5% over sales of $321.1 million in 2009. Consumer interest in glyphosate-based nonselective vegetation control herbicides continues to be strong due to their effectiveness, their reputation for safety, the increasing popularity of spot-treatment of weeds, and stronger promotion for edging, maintenance of paved areas, and other applications.

The following business development activity has affected this segment in the reporting period:

- In April 2012, Valent announced an agreement with The Scotts Company wherein Scotts will acquire certain assets of the Green Light Company, including trademarks for the Green Light brand Amaze Grass & Weed Preventer2.
- In early 2012, Howard Johnson's Enterprises was acquired by Central Garden & Pet, a Missouri-based manufacturer, marketer, and innovator of lawn and garden products for consumer and professional use.
- In March 2011, Israel Chemicals Ltd, an Israeli multinational fertilizer and specialty chemicals company, announced that they had completed the purchase of the Global Professional business segment from Scotts. The acquisition included the line of branded products including Osmocote, Sierrablend, and Peters Professional; a large sales and marketing force; R&D resources; as well as several factories and peat mines located in Holland, the United Kingdom, and the United States.
- In January 2011, Lebanon Seaboard acquired the horticulture and turf division of Plant Health Care, Inc. This acquisition was done in order to increase the product range of Lebanon Seaboard in the golf course and landscape professional market.
- In July 2011, MAI announced that it would combine the activities of Quali-Pro, its Raleigh, NC based brand focused on turf and ornamental products, with Control Solutions. The integration of Quali-Pro with Control Solutions is intended toward attaining a more comprehensive portfolio of effective products in the environmental solutions market.

New product introductions in this segment include the following:

- In its 2012 catalog, VPG has introduced a number of new products. The company's most recent launches under Hi-Yield brand are Nutsedge Control and Ornamental Weed Preventer. Under the Natural Guard brand, VPG has recently launched Organic Spot Weeder.
- In 2009, Pennington introduced a new brand—Signature series fertilizer for the U.S. market—and in early 2010—Knockout insecticides and herbicides.

PRODUCT DESCRIPTION

Garden herbicides provide preemergence control of broadleaf weeds and grasses in flowerbeds and vegetable gardens, and under trees and shrubs. Nonselective herbicides are used for general control of brush, woody plants, weeds, and grasses and can be either residual or nonresidual in their effect. Nonselective herbicides are particularly useful for removing unwanted vegetation from driveways, sidewalks, patios, and along fence lines. They are also increasingly being used for spot treatment of weeds in turf.

THE MARKET

Marketers' sales

Marketers' sales of garden and nonselective herbicides are estimated at $292.4 million in 2011, an annualized decrease of 4.5% from sales of $321.1 million in 2009.

Table 4B-1: Sales of Garden Herbicides to the U.S. Consumer Market, 1999-2016

Year-a	$ Million	Average annual growth, %
1999	228.5	3.1
2001	248.4	4.3
2003	265.7	3.5
2008	279.5	2.5
2007	285.7	1.1
2009	321.1	6.2
2011	292.4	(4.5)

a- This study was not conducted in 2000, 2002, 2004, 2006, 2008, or 2010.

Sales by region

The South accounts for the largest percentage of sales of garden and nonselective herbicides, followed by the Midwest and the West.

Table 4B-2: Sales of Garden Herbicides in the U.S. Consumer Market by Region, 2011		
Region	**$ Million**	**% Of total**
South	111.0	38.0
Midwest	67.2	23.0
West	57.6	19.7
Northeast	56.4	19.3
Total	**292.2**	**100.0**

Retail shipments

Retail shipments of garden and nonselective herbicides are estimated at 46.0 million lb and 25 million gal of formulated product in 2011.

Product form

Most nonselective products are liquids. Garden herbicides are sold in both solid and liquid forms.

Table 4B-3: Sales of Garden Herbicides in the U.S. Consumer Market by Product Form, 2011				
	Million			
Product form	**Lb**	**Gal**	**$**	**% Of total value**
Liquid	-	25.0	248.8	85.1
Solid	46.0	-	43.4	14.9
Total-a	**46.0**	**25.0**	**292.2**	**100.0**

a- Includes minor amounts of aerosol, dust, and water-soluble powder forms of garden and nonselective herbicides.

Product type

Nonselective herbicides dominate this product category, accounting for 76.1% of sales in 2011. Garden herbicides, which by nature of their use are all selective, make up the remaining 23.9%. Almost all nonselective herbicides are postemergence, nonresidual products. Garden herbicides are typically preemergence products with some residual activity.

Table 4B-4: Sales of Garden Herbicides to the U.S. Consumer Markets by Product Type, 2011		
Product type	**$ Million**	**% Of total**
Nonselective	222.5	76.1
Garden/selective	69.7	23.9
Total	**292.2**	**100.0**

Active ingredients

Glyphosate is the most widely used active ingredient in nonselective herbicides and accounts for almost 70% of total active ingredient weight in 2011.

Table 4B-5: Volume of Active Ingredients Used in Garden Herbicides in the U.S. Consumer Market, 2011		
Active ingredient	**Thousand lb**	**% Of total**
Glyphosate	5,070	69.8
Pelargonic acid	1,041	14.3
Trifluralin	684	9.4
Diquat	196	2.7
Prometon	130	1.8
All other-a	139	1.9
Total	**7,260**	**100.0**

a- Includes 2,4-D, dicamba, dithiopyr, imazapic, and triclopyr, among other active ingredients.

Private-label activity

Private-label products represent a minor portion of nonselective and garden herbicide sales and are estimated to represent less than 5% of total sales in 2011.

PRICES AND MARGINS

Retail margins for garden and nonselective herbicides average from 35% to 40%.

Table 4B-6: Retail Prices of Selected Consumer Garden and Nonselective Herbicides in the United States, 2011				
Brand	**Marketer**	**Form**	**Size**	**Retail price, $**
Garden Safe Weed and Grass Killer RTU	Spectrum Brands	Liquid	24 fl oz	6.99
Greenview Preen Garden Weed Preventer	Lebanon	Granular	16 lb	26.97
Monterey Weed Impede 2-in-1 Weed Killer (RTU)	Monterey	Liquid	32 fl oz	17.96
Ortho GroundClear Complete Vegetation Killer	Scotts	Liquid	1 gal	19.94
Ortho Total Kill Weed & Grass Killer	Scotts	Liquid	1 qt	16.92
Roundup Extended Control Concentrate	Scotts	Liquid	1 qt	31.44
Roundup Poison Ivy & Tough Brush Killer Concentrate	Scotts	Liquid	1 qt	26.94
Roundup Pump-n-Go Weed & Grass Killer	Scotts	Liquid	1.33 gal	16.77
Roundup Weed & Grass Killer Concentrate Plus	Scotts	Liquid	1 qt	23.99
Roundup Weed & Grass Killer Super Concentrate	Scotts	Liquid	1 gal	109.99
Roundup Weed & Grass Killer RTU	Scotts	Liquid	1 gal	10.22
Spectracide Weed & Grass Killer RTS Concentrate	Spectrum Brands	Liquid	32 fl oz	15.97

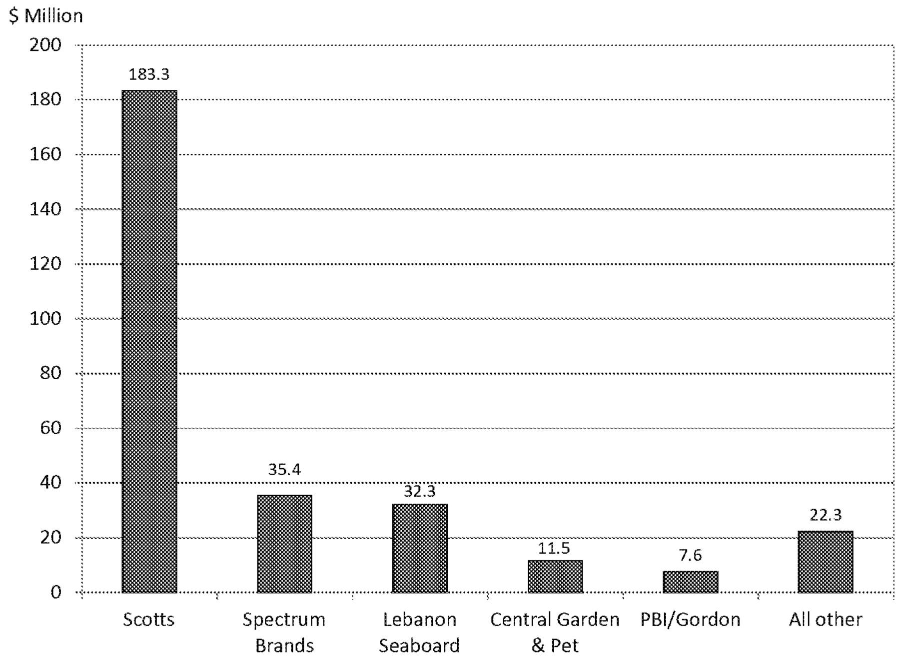
PACKAGING

Nonselective products are packaged in plastic jugs, glass bottles, and metal cans ranging in size from 1 pt to 1 gal. Garden herbicides are often sold in paperboard canisters or plastic containers with shaker tops. Liquid ready-to-use (RTU) products are packaged in plastic bottles with pump-spray applicators. Aerosols are packaged in metal canisters.

COMPETITION

The Scotts Company, the marketer of Monsanto's glyphosate, is the dominant marketer of herbicides in this product category, accounting for approximately 63% of total sales in 2011. Note that this report is crediting Scotts with Roundup sales, but, in reality, Scotts records only an agency commission from Monsanto on its books for these sales. Roundup accounts for most of Scotts' sales in this category. Spectrum Brands ranks a distant second with 12.1% of category sales, followed by Lebanon Seaboard with 11.0%.

Figure 4B-1: U.S. Sales of Consumer Garden and Nonselective Herbicides by Major Marketer, 2011



Total: $292.4 Million

Table 4B-7: U.S. Sales of Consumer Garden and Nonselective Herbicides by Major Marketer, 2011

		$ Thousand			
Brand(s)	**Company**	**Garden herbicides**	**Nonselective herbicides**	**Total**	**% Of total**
Roundup, Ortho, Triox-a	Scotts	20,305	163,000	183,305	62.7
Spectracide, Weed Stop	Spectrum Brands	7,080	28,320	35,400	12.1
Greenview, Preen	Lebanon Seaboard	30,150	2,112	32,262	11.0
Lilly Miller, Worry-Free	Central Garden & Pet	3,150	8,300	11,450	3.9
Gordon's	PBI/Gordon	4,900	2,700	7,600	2.6
Security, Surrender	Control Solutions Inc.	-	6,000	6,000	2.1
Ferti-Lome, American	Voluntary Purchasing Group	-	4,246	4,246	1.5
Green Light	Green Light	700	1,600	2,300	0.8
Bonide	Bonide	250	2,000	2,250	0.8
Dexol	Value Garden Supply	400	1,400	1,800	0.6
Easy Weeder	The Andersons	1,218	-	1,218	0.4
Southern Ag	Southern Agricultural	1,000	-	1,000	0.3
Burnout, Moss Killer	St. Gabriel Organics	188	375	563	0.2
Enforcer	ZEP	-	485	485	0.2
All other-b	-	500	2,000	2,500	0.9
Total		**69,741**	**222,538**	**292,379**	**100.0**

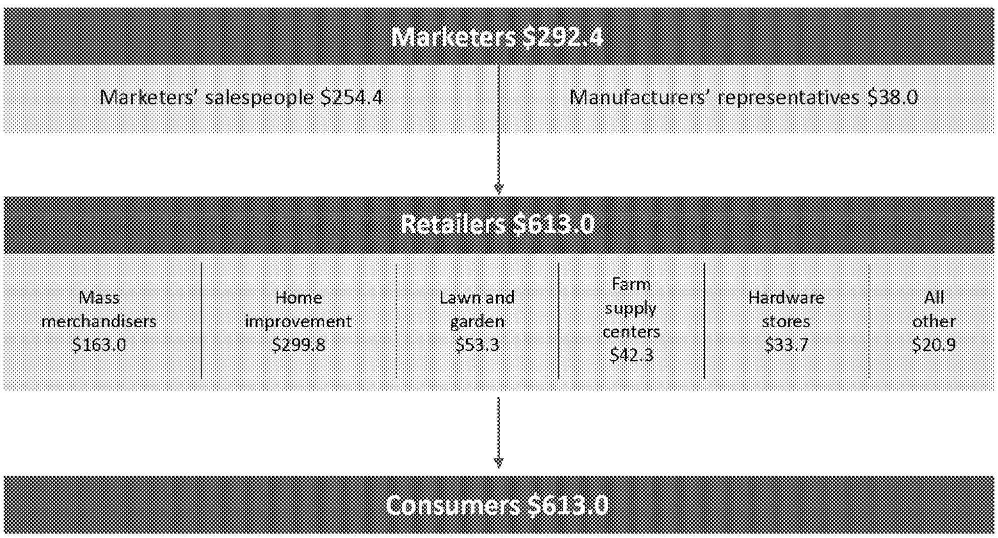
a- Includes Roundup sales, estimated by Kline at $160 million. These sales are made by Scotts, but not reported by Scotts because of its licensing arrangement with Monsanto. Scotts records only licensing income.
b- Includes other small marketers.

DISTRIBUTION CHANNELS

Almost all sales of garden and nonselective herbicides are made by company sales representatives in 2011. Home improvement centers are the most important retail outlets for garden and nonselective herbicides, accounting for an estimated 49% of sales in 2011. Mass merchandise stores rank second with about 27% of sales.

Figure 4B-2: Estimated U.S. Distribution of Consumer Garden and Nonselective Herbicides, 2011

Millions of marketers' dollars



The channel data reflect the number of respondents that purchase the product category in each type of outlet. This historical method does not take into account the impact of income differences on channel revenue. To account for that impact, this analysis used the respondents with incomes of more than $50,000 per year to reflect the higher disposable incomes spent on lawn, garden, and home products, as well as larger lot sizes associated with these higher-income individuals. Both factors would tend to increase their spending per purchase. Kline & Company has not altered the tabulations shown in this section, but has used only the higher-income respondents to calculate distribution channel importance.

PROMOTION

In many cases, advertisements for herbicide products are part of a general campaign promoting the entire product line rather than lawn herbicides specifically. Cooperative advertising programs and trade show participation are also used for the promotion of an overall line. Smaller regional marketers typically rely on cooperative advertising programs with retailers and distributors.

The primary traceable advertiser in the category is The Scotts Miracle-Gro Company, which spent $35 million in 2010 and $25 million in 2011 for all products, virtually all on television advertising. Lebanon Seaboard increased its advertising spending, supporting their Preen brand with $3.7 million in 2010 and $3.2 million in 2011, with the majority for television advertising. Media expenditure details are shown in the company profiles.

OUTLOOK

Sales of garden herbicides are dependent on weather conditions, but more importantly on consumer interest in flower and vegetable gardening, and thus sales can fluctuate from year to year. Sales of nonselective, glyphosate-based and other total vegetation control herbicides will show further growth for the next several years as more consumers become aware of these products and as more brands continue to become available. Some of this sales growth is being offset by the use of generic glyphosate products, which tend to be sold at a lower price.

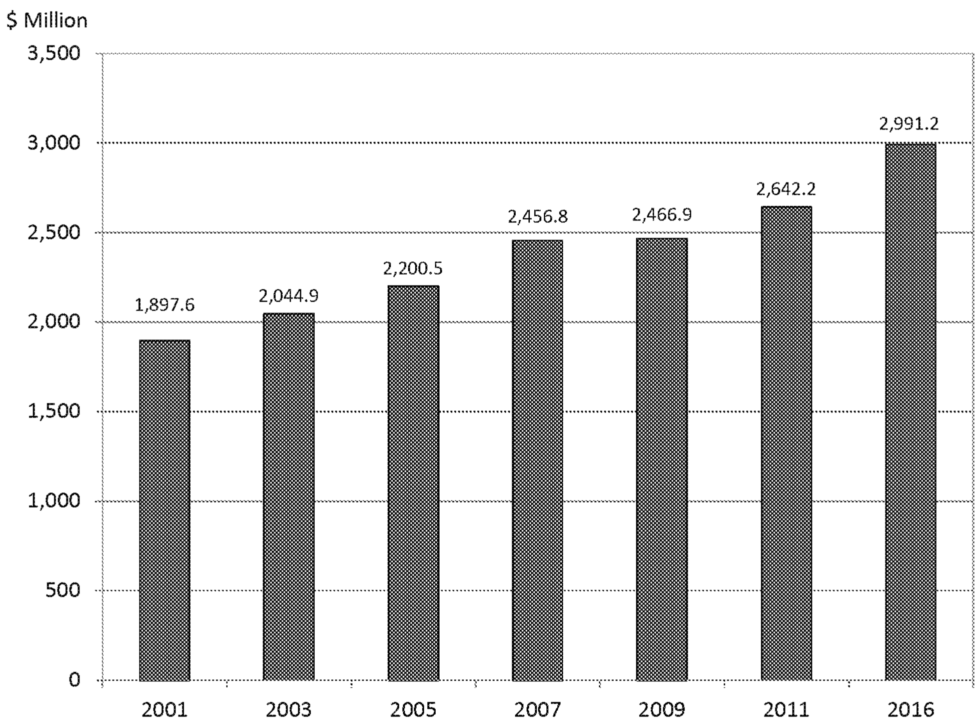
Sales of garden and nonselective herbicides will continue to increase at a modest rate over the next five years as market penetration of total vegetation control products slowly rises and the overall economic climate improves. Sales are projected to reach $322.8 million in 2016, a 2.0% annual increase.

Table 4B-8: Outlook for Garden Herbicides in the U.S. Consumer Market, 2011-2016

Year	$ Million	Average annual growth, %
2011	292.4	-
2016	322.8	2.0

5. INSECTICIDES

Figure 5-1: Total Consumer Insecticides Category Sales, 2001 to 2016



COVERAGE

This section covers insecticides and insect repellents for indoor and outdoor use, as follows:

- 5A. Outdoor Insecticides
- 5B. Household and Houseplant Insecticides
- 5C. Pet Insecticides
- 5D. Insect Repellents

Insecticides combined with fungicides or herbicides, other than combination fertilizer-insecticide products for houseplant or garden use, are included in this category. Moth control products are no longer covered in this study.

THE MARKET

Marketers' sales

Marketers' sales of lawn, garden, household, pet insecticides, and insect repellents in the United States are estimated at $2,642.2 million in 2011, an annualized increase of 3.5% and a net increase of 7.1% from 2009 sales of $2,466.9 million.

Table 5-1: Sales of Insecticides to U.S. Consumer Market, 1999-2011

Year-a	$ Million	Average annual growth, %
1999	1,779.3	9.7
2001	1,897.6	3.3
2003	2,044.9	3.9
2005	2,200.5	3.8
2007	2,456.8	5.7
2009	2,466.9	0.2
2011	2,642.2	3.5

a- This study was not conducted in 2000, 2002, 2004, 2006, 2008, or 2010.

Sales by region

Among the regions, the South accounted for the largest percentage of insecticide sales in 2011, followed by the North Central and the Northeast.

Table 5-2: Sales of Insecticides to U.S. Consumer Market by Region, 2011

Region	$ Million	% Of total
South	1,026.6	38.9
North Central	690.4	26.1
Northeast	523.5	19.8
West	401.6	15.2
Total	**2,642.2**	**100.0**

Retail shipments

Shipments of consumer insecticides, including insect repellents, are estimated at 276.0 million lb and 43.4 million gal of formulated product in 2011.

Application

Pet insecticides accounted for about 46% of total sales of consumer insecticides in 2011. Outdoor and household insecticides rank second and third, respectively.

Table 5-3: Sales of Insecticides to U.S. Consumer Market by Application, 2011						
	Million			% Of total		
Application	**Lb**	**Gal**	**$**	**Weight**	**Volume**	**Value**
Pet	4.5	5.9	1,217.5	2	14	46
Outdoor	159.1	10.5	582.4	58	24	22
Household	98.9	24.7	494.4	36	57	19
Repellent	13.5	2.3	347.9	5	5	13
Total	**276.0**	**43.4**	**2,642.2**	**100**	**100**	**100**

Product form

Pet insecticides, accounting for 46% of total consumer sales in 2011, encompass several product forms unique to that category. Aerosol products and liquids make up 12% and 14% of consumer sales, respectively. Solids, including bait trays, account for approximately 17% of total sales.

Table 5-4: Sales of Insecticides to U.S. Consumer Market by Product Form, 2011						
	Million			% Of total		
Product form-a	**Lb**	**Gal**	**$**	**Weight**	**Volume**	**Value**
PET INSECTICIDES	4.5	5.9	1,217.5	2	14	46
AEROSOL-a	111.8	-	330.6	39	-	12
LIQUID	-	35.2	384.4	-	81	14
SOLID-b						
Bait	11.8	-	163.2	4	-	6
All other-c	142.7	-	288.2	49	-	11
Total	154.5	-	451.4	54	-	17
INSECT REPELLENTS	13.5	2.3	347.9	4	7	13
FOGGERS	3.6	-	4.9	1	-	d
TOTAL-e	**287.9**	**43.4**	**2,642.2**	**100**	**100**	**100**

a- Does not include pet insecticide aerosols or insect repellent aerosols.
b- Pet insecticides and insect repellents are identified separately because many product forms in these categories are not comparable to other insecticides.
c- Includes dusts, powders, granules, cakes, spikes, balls, and crystals.
d- Minor.
e- Totals may not add due to rounding.

Active ingredients

N,N-diethyl-meta-toluamide (commonly referred to as DEET) accounts for the largest amount, or 60%, of active ingredient weight in this segment, reflecting its presence in the majority of insect repellent products and the comparatively high concentrations used. Other major active ingredients include carbaryl (11.0%), picardin (13.7%), IR3535 (9.7%), pyrethrin (1.2%), and tetrachlorvinphos (TCVP) (1.8%). The remaining active ingredients are fragmented, with none accounting for more than 5% of active ingredient weight, which totaled 15.3 million lb in 2011.

ACQUISITIONS, DIVESTITURES, AND NEW PRODUCTS

The following business developments have occurred in this segment in the reporting period:

- In January 2012, a Japanese firm, Unicharm Corporation, acquired 51% stake in the common share of the Hartz Mountain Corporation from Sumitomo Corporation.
- In April 2012, Valent announced an agreement with The Scotts Company wherein Scotts will acquire certain assets of the Green Light Company, including trademarks for the Green Light brands Conquest Insecticide Concentrate, and Yard Safe Insect Repellent, among others.
- In April 2012, Senoret Chemical Company was acquired by Woodstream Corporation and will operate as a subsidiary.
- In early 2012, Howard Johnson's Enterprises, a Missouri-based manufacturer, marketer, and innovator of lawn and garden products for consumer and professional use, was acquired by Central Garden & Pet.
- In February 2012, AMVAC Chemical Corporation has acquired the manufacturing rights of B.t.i. Briquets from Summit Chemical for the global professional mosquito larvicide market. As per the agreement, Summit Chemical will manufacture and provide AMVAC Chemical with a pipeline of new larvicides based on B.t.i. for the public health mosquito control market.
- Woodstream Corporation has recently completed the acquisition of Senoret Group, Inc. and its related entities and brands TERRO and Sweeney's.
- In November 2011, Spectrum acquired Black Flag and TAT from the Homax Group Inc. (part of the portfolio of Olympus Partners) and added their liquid, aerosol, and baits/traps lines to control ants, spiders, wasps, bedbugs, fleas, roach, fly and yellow jackets. The newly acquired Black Flag consumer products line has four sub brands: Pesticide Free, Stinging Pests, Crawling Pests, and Flying Pests.
- In 2011, S.C. Johnson challenged EPA regulations that came into effect in 2006 and involved deep review of pesticide studies that use human subjects. According to S.C. Johnson, such regulations only contribute to stifling and demotivating research efforts in the field of pesticides. S.C. Johnson also added that in addition to the extra cost involved in adhering to the new guidelines, a lot of time is wasted before a chemical ingredient is reviewed by EPA.

- In March 2011, Merck and Sanofi-Aventis announced the mutual termination of their agreement to form a new animal health joint venture by combining Merial with Intervet/Schering-Plough. Hence, each party will continue to operate independently with separate animal health businesses.
- In 2011, Sergeant's acquired the rights to a patented pest-control formula from Sumitomo Chemical Co. of Japan. This entitles Sergeant's to the manufacturing and sale of the spot-on pesticidal composition combining fipronil with an insect growth regulator such as methoprene or pyriproxyfen.
- In March 2011, Israel Chemicals Ltd, an Israeli multinational fertilizer and specialty chemicals company, announced that they had completed the purchase of the Global Professional business segment from Scotts. The acquisition included the line of branded products including Osmocote, Sierrablend, and Peters Professional; a large sales and marketing force; R&D resources; as well as several factories and peat mines located in Holland, the United Kingdom, and the United States.
- In July 2011, MAI announced that it would combine the activities of Quali-Pro, its Raleigh, NC-based brand focused on turf and ornamental products, with Control Solutions. The integration of Quali-Pro with Control Solutions is intended toward attaining a more comprehensive portfolio of effective products in the environmental solutions market.
- The compound patent for fipronil, the active ingredient of Frontline, has expired in 2009 in Japan and in some European countries, including France, Germany, Italy, and the United Kingdom, and in August 2010 in the United States. Frontline products are still protected through formulation patents, however, which expire in 2017 in Europe and 2016 in the United States.
- In April 2010, PBI Gordon announced a marketing agreement with Mitsui Chemicals Agro of Tokyo, Japan that gives PBI Gordon the rights to market and sell dinotefuran in the U.S. golf market, as well as certain rights in other professional turf and ornamental markets.
- Bayer expanded its sales channel for animal health products and began selling Advantage Topical Solution and K9 Advantix directly to pet specialty retailer and pet specialty Internet sites in March 2010.
- In 2009, Monterey AgResources was acquired by Brandt Consolidated, Inc.

New product introductions in the reporting period include the following:

- In its 2012 catalog, VPG has introduced a number of new products. Under the Ferti-Lome brand, they have launched 2-N-1 Systemic for garden protection against pests and diseases. Under the Hi-Yield brand are Systemic Insect Spray, and Systemic Insect Spray RTS.
- In 2012, Summit Chemical is launching its Biological Caterpillar & Webworm Control, an eco-friendly caterpillar killer that targets caterpillars and webworms.
- St. Gabriel Organics has launched new products included in its organic line in the last two years: Stink Bug Killer, Bugshooter Garden Insect Killer, and Flyswatter.
- PIC has recently launched Bugables Mosquito Repellent Stickers and Twist It Mosquito Repeller. The company also plans to launch specific control products for bed bugs, spiders, and insecticide-free products.

- In 2011, Sergeant's launched a generic equivalent of the Frontline in Sergeant's Pet Care Products under the name FiproGuard. Fiproguard is a less expensive version with the same active ingredient as Frontline Top Spot, aimed at the same effectiveness and safety profile more economically. Also in 2011, Sergeant's acquired the rights to a patented pest-control formula from Sumitomo Chemical Co. of Japan. This entitles Sergeant's to the manufacturing and sale of the spot-on pesticidal composition combining fipronil with an insect growth regulator such as methoprene or pyriproxyfen.
- In 2011, Bonide introduced new line items: Garden Dust, based on pyrethrin; and Dragon Dust with Copper, based on carbaryl and copper.
- In 2011, Bayer introduced LifeNet mosquito nets.
- In early 2010, Control Solutions launched Optimate SC, an insecticide containing gamma cyhalothrin for use against adult and immature beetles, darkling beetles, and hide and carrion beetles. The company also launched two products under the Pyrofos brand: Pyrofos 1.5 ULV containing chlorpyrifos to control adult mosquitoes in outdoor areas; and Pyrofos CS, a micro-encapsulated premise insecticide to be used in and around livestock, housing and commercial buildings. In 2011, the company launched the first post-patent fipronil products under the Taurus brand, including Taurus G, a granular insecticide containing 0.0143% fipronil, and Taurus SC, a liquid formulation containing 0.8 lb of fipronil per gal.
- J.T. Eaton's new products include J.T. Eaton Bedbug Spray for Luggage, a permethrin-based product that kills bedbugs for four to six weeks; Webster Cobweb Duster, a powder coated insecticidal dusters.
- In 2009, Woodstream Corporation's Safer Brand released ready-to-spray organic pest control concentrates: Safer Brand Bug Patrol, Mosquito & Tick Killer and Grub Killer are used in ready-to-spray concentrate formulations that connect to a garden hose for simple organic pest control. In 2010, Woodstream launched Safer Brand EndALL.
- In 2009, Southern Agricultural launched an imidacloprid based insecticide product called Grubs Away. In the organic and natural category, they have seven retail proprietary products marketed as "Reduced Risk, Organic or Eco Friendly." These organic products include: Payback Fire Ant Bait with 0.15% Spinosad, Boric Acid Roach Powder with 100% boric acid, Neem Oil Triple Action with 70% neem oil, Dipel Dust with Bacillus thuringiensis, Thuricide BT Caterpillar Control with Bacillus thuringiensis, Parafine Horticultural Oil with 98% parafinic oil, and Natural Pyrethrin Concentrate with 0.96% pyrethrin.

COMPETITION

Combined sales of household, outdoor, pet, and houseplant insecticides, and insect repellents for the 10 largest suppliers of consumer products collectively represent more than 88% of the total market. Merial accounts for 20.1% of total sales, followed by S.C. Johnson with 15.7%. Spectrum Brands, Bayer, and Scotts Miracle-Gro round out the top five suppliers in 2011 with approximately 11%, 10%, and 10%, respectively.

Table 5-5: U.S. Sales of Consumer Insecticides by Major Marketer, 2011		
Company	**$ Million**	**% Of total**
Merial	532,000	20.1
S.C. Johnson	415,000	15.7
Spectrum Brands	291,660	11.0
Bayer	272,030	10.3
The Scotts Miracle-Gro Company	268,008	10.1
Hartz Mountain	150,000	5.7
Central Garden & Pet	142,350	5.4
Novartis	116,000	4.4
Pfizer	85,000	3.2
Avon	64,500	2.4
Lamplight Farms	30,000	1.1
Woodstream	30,000	1.1
Senoret	25,500	1.0
Sergeant's Pet Care	22,000	0.8
Control Solutions	15,300	0.6
All other-a	182,886	7.0
Total	**2,642,234**	**100.0**

a- Includes The Andersons, Bengal, Bonide, Green Light, and Zep, among others.

DISTRIBUTION CHANNELS

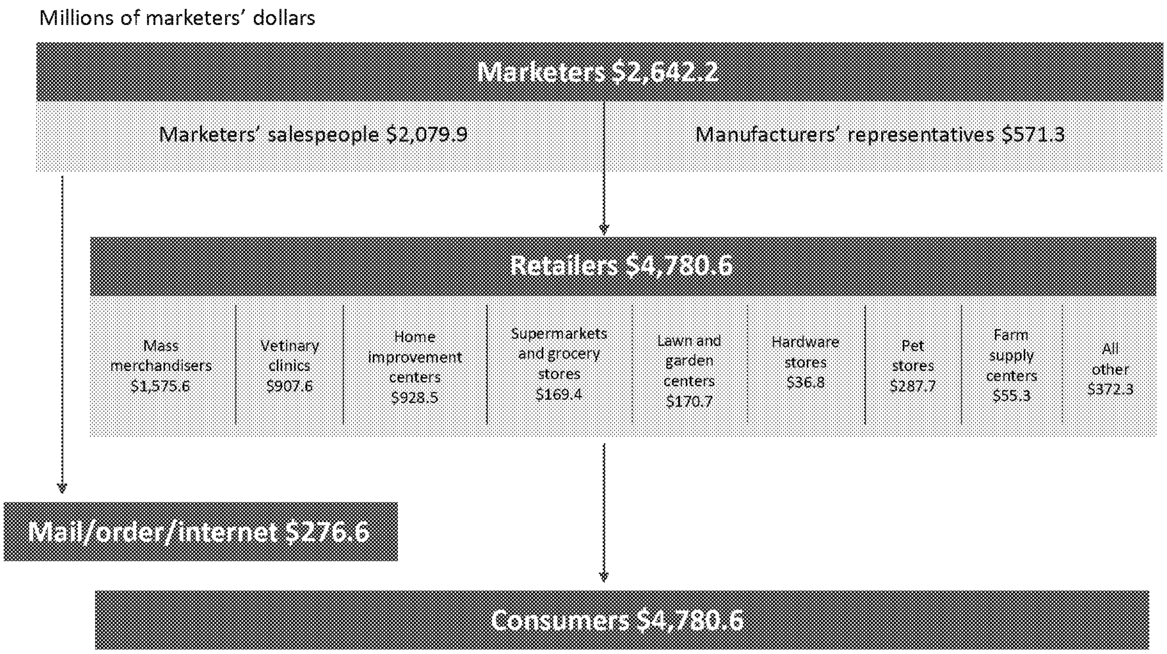
Distribution of lawn, garden, and household insecticides varies significantly by product category and marketer. While two-step distribution is still important in this product category, manufacturers now sell most material directly to retailers, particularly the large chains. Household insecticides, in contrast, are often sold directly to retailers. Approximately 78% of sales are made by company sales representatives and 22% are made by manufacturers' representatives.

The 2011 edition of this report is showing minor changes in second tier distribution outlets compared to prior editions. At the top, discount/mass merchandise stores, home improvement centers, and veterinarians (because of pet insecticides) remain the leading retail outlets for consumer insecticides, accounting for 33%, 29%, and 19% of total sales, respectively.

Table 5-6: U.S. Sales of Consumer Insecticides by Type of Retail Outlet, 2011		
Retail outlets	**$ Million**	**% Of total**
RETAILERS		
Mass-merchandise stores	1,575.6	33.0
Home improvement centers	928.5	19.4
Veterinarians	907.6	19.0
Pet superstores	287.8	6.0
Supermarkets and grocery stores	169.4	3.5
Lawn and garden centers-a	170.7	3.6
Farm supply stores	55.3	1.2
Hardware stores	36.8	0.8
Total	4,131.7	86.4
INTERNET/MAIL ORDER	276.6	5.8
ALL OTHER-b	372.3	7.8
TOTAL	**4,780.6**	**100.0**

a- Includes retail nurseries.
b- Includes pet stores, warehouse stores, drug stores, and other retail outlets.

Figure 5-2: Estimated U.S. Distribution of Consumer Insecticides, 2011



The channel data in Figure 5-2 reflects the number of respondents that purchase the product category in each type of outlet. This historical method does not take into account the impact of income differences on channel revenue. To account for that impact, this analysis used the respondents with incomes of more than $50,000 a year to reflect the higher disposable incomes spent on lawn, garden, and home products, as well as larger lot sizes associated with these higher-income individuals. Both factors would tend to increase their spending per purchase. Kline & Company has not altered the tabulations shown in this section, but has used only the higher-income respondents to calculate distribution channel importance.

OUTLOOK

Sales of insecticides and insect repellents fluctuate from year to year based on weather conditions, which can intensify or minimize insect problems. Long-term growth in the consumer insecticide market appears to be good once the economy fully recovers from the current recession and consumers begin to spend at previous levels. Growth in this segment is expected due to consumers placing growing importance on keeping their homes, yards, and pets insect-free. The general concern over West Nile virus should continue to fuel growth of outdoor insecticides and insect repellents.

Total sales of consumer insecticides and insect repellents are projected to reach close to $3 billion in 2016, an average annual increase of 2.6%.

Table 5-7: Outlook for Insecticides to the U.S. Consumer Market, 2011-2016

Year	$ Million	Average annual growth, %
2011	2,642.2	-
2016	2,991.2	2.6

5A. OUTDOOR INSECTICIDES

Sales of outdoor insecticides at the manufacturers' level are estimated at $582.4 million in 2011, representing an annualized increase of 2.5% compared to 2009 sales of $554.9 million.

The following business developments have occurred in this segment in the reporting period:

- In early 2012, Howard Johnson's Enterprises a Missouri based manufacturer, marketer, and innovator of lawn and garden products for consumer and professional use, was acquired by Central Garden & Pet.
- In April 2012, Valent announced an agreement with The Scotts Company wherein Scotts will acquire certain assets of the Green Light Company, including trademarks for the Green Light brands Conquest Insecticide Concentrate, and Yard Safe Insect Repellent, among others.
- As of April 2012, Senoret was acquired by Woodstream Corporation and will operate as a subsidiary.
- In February 2012, AMVAC Chemical Corporation has acquired the manufacturing rights of B.t.i. Briquets from Summit Chemical for the global professional mosquito larvicide market. As per the agreement, Summit Chemical will manufacture and provide AMVAC Chemical with a pipeline of new larvicides based on B.t.i. for the public health mosquito control market.
- In July 2011, MAI announced that it would combine the activities of Quali-Pro, its Raleigh, NC based brand focused on turf and ornamental products, with Control Solutions. The integration of Quali-Pro with Control Solutions is intended toward attaining a more comprehensive portfolio of effective products in the environmental solutions market.
- In March 2011, Israel Chemicals Ltd, an Israeli multinational fertilizer and specialty chemicals company, announced that they had completed the purchase of the Global Professional business segment from Scotts. The acquisition included the line of branded products including Osmocote, Sierrablend, and Peters Professional; a large sales and marketing force; R&D resources; as well as several factories and peat mines located in Holland, the United Kingdom, and the United States.
- In April 2010, PBI Gordon announced a marketing agreement with Mitsui Chemicals Agro of Tokyo, Japan that gives PBI Gordon the rights to market and sell dinotefuran in the U.S. golf market, as well as certain rights in other professional turf and ornamental markets.
- In 2009, The Andersons, Inc. acquired the Fertilizer Division of Hartung Brothers, Inc., as an addition to their Plant Nutrient Group.
- In 2009, Monterey AgResources was acquired by Brandt Consolidated, Inc.
- Woodstream Corporation has recently completed the acquisition of Senoret Group, Inc. and its related entities and brands TERRO and Sweeney's.

New product introductions in the reporting period include the following:

- In its 2012 catalog, VPG has introduced a number of new products. Under the Ferti-Lome brand, they have launched 2-N-1 Systemic for garden protection against pests and diseases. Under the Hi-Yield brand are Systemic Insect Spray, and Systemic Insect Spray RTS.
- In 2012, Summit Chemical is launching its Biological Caterpillar & Webworm Control, an eco-friendly caterpillar killer that targets caterpillars and webworms.
- Bengal plans to introduce a new product in the Outdoor Bugs product line in 2012.
- In 2011, Bayer introduced LifeNet mosquito nets and Nortica, a biological product that enhances root growth and lawn resistance.
- In 2011, Bonide introduced new line items: Garden Dust, based on pyrethrin; and Dragon Dust with Copper, based on carbaryl and copper.
- In early 2010, Control Solutions launched Optimate SC, an insecticide containing gamma cyhalothrin for use against adult and immature beetles, darkling beetles, and hide and carrion beetles. The company also launched two products under the Pyrofos brand: Pyrofos 1.5 ULV containing chlorpyrifos to control adult mosquitoes in outdoor areas; and Pyrofos CS, a micro-encapsulated premise insecticide to be used in and around livestock, housing and commercial buildings. In 2011, the company launched the first post-patent fipronil products under the Taurus brand, including Taurus G, a granular insecticide containing 0.0143% fipronil, and Taurus SC, a liquid formulation containing 0.8 lb of fipronil per gal.
- In 2009, Southern Agricultural launched an imidacloprid based insecticide product called Grubs Away. In the organic and natural category, they have seven retail proprietary products marketed as "Reduced Risk, Organic or Eco Friendly." These organic products include: Payback Fire Ant Bait with 0.15% Spinosad, Boric Acid Roach Powder with 100% boric acid, Neem Oil Triple Action with 70% neem oil, Dipel Dust with Bacillus thuringiensis, Thuricide BT Caterpillar Control with Bacillus thuringiensis, Parafine Horticultural Oil with 98% parafinic oil, and Natural Pyrethrin Concentrate with 0.96% pyrethrin.
- In 2009, Woodstream Corporation's Safer Brand released ready-to-spray organic pest control concentrates. Safer Brand Bug Patrol, Mosquito & Tick Killer and Grub Killer are used in ready-to-spray concentrate formulations that connect to a garden hose for simple organic pest control.
- St. Gabriel Organics has launched new products included in its organic line in the last two years: Stink Bug Killer, Bugshooter Garden Insect Killer, and Flyswatter.

PRODUCT DESCRIPTION

Outdoor insecticides fall into two broad categories: lawn and garden insecticides and non-plant insecticides.

Lawn and garden insecticides

These products are designed to kill vegetation-damaging insects infesting lawns, gardens, trees, and other ornamentals. Target insects include webworms, grubs, aphids, gypsy moths, and various caterpillars. Insecticide-fungicide and insecticide-herbicide combination products are included here. For insecticide-fertilizer combination products, see the Lawn Fertilizers and Garden Fertilizers chapters.

Nonplant insecticides

These products are used to kill insects that are a direct nuisance to humans and pets, including mosquitoes, termites, ants, fleas, ticks, and other flying and crawling insects found outside the home. In many cases, these products are similar to household insecticides. Outdoor foggers are included in this group, as are flea and tick products for yard use offered by suppliers other than pet product companies.

THE MARKET

Marketers' sales

Sales of outdoor insecticides at the manufacturers' level are estimated at $582.4 million in 2011, representing an annualized increase of 2.5% compared to 2009 sales of $554.9 million.

Table 5A-1: Sales of Outdoor Insecticides to U.S. Consumer Market, 1999-2011

Year-a	$ Million	Average annual growth, %
1999	377.8	15.3
2001	427.9	6.6
2003	529.9	11.9
2005	528.8	(0.1)
2007	552.9	2.3
2009	554.9	0.4
2011	582.4	2.5

a- This study was not conducted in 2000, 2002, 2004, 2006, 2008, or 2010.

Sales by region

Among the regions, the South leads in consumption of outdoor insecticides, accounting for about 36.7% of total sales in 2011, followed closely by the North Central with 31.1%.

Table 5A-2: Sales of Outdoor Insecticides to U.S. Consumer Market by Region, 2011

Region	$ Million	% Of total
South	213.7	36.7
North Central	181.1	31.1
Northeast	110.7	19.0
West	76.9	13.2
Total	**582.4**	**100.0**

Retail shipments

Shipments of outdoor insecticides are estimated at roughly 159.1 million lb and 10.5 million gal of formulated product in 2011.

Product form

Liquid products are the most popular form of outdoor insecticides, accounting for more than 47% of sales in 2011. Granular products rank second with 24.3% of sales.

Table 5A-3: Sales of Outdoor Insecticides to U.S. Consumer Market by Product Form, 2011

	Million			% Of total		
Product form	**Lb**	**Gal**	**$**	**Weight**	**Volume**	**Value**
Liquid	-	10.5	275.7	-	100.0	47.3
Granular	108.9	-	141.4	68.5	-	24.3
Dust	17.4	-	77.2	10.9	-	13.2
Aerosol	25.5	-	48.1	16.0	-	8.3
All other	7.3	-	39.9	4.6	-	6.9
Total	**159.1**	**10.5**	**582.4-a**	**100.0**	**100.0**	**100.0**

a- Does not add due to rounding.

Product type

Kline & Company estimates that lawn and garden insecticides accounted for approximately $360 million, or roughly 65% of sales and the bulk of physical volume in this product category, in 2009. Non-plant products, including insecticides for fire ant control, contributed the remaining 35%. Moreover, there is significant overlap between non-plant outdoor insecticides and household insecticides. Most manufacturers of household insecticides include products for both indoor and outdoor use in their lines and find it difficult to allocate sales of these products into separate categories. Sales of non-plant insecticides, as stated in this product category, are therefore less than what is the most likely total consumer outdoor use.

Active ingredients

Estimated consumption of active ingredients is given below. Please refer to the Lawn Fertilizers chapter of this report for fertilizer-insecticide combination product use.

Table 5A-4: Sales of Outdoor Insecticides to U.S. Consumer Market by Active Ingredient, 2011

Active ingredient	Thousand lb	% Of total
Carbaryl	1,689	15.5
Acephate	1,510	13.8
Malathion	1,170	10.7
Boric acid	735	6.7
Bifenthrin	647	5.9
Indoxacarb	82	0.8
Hydramethylnon	53	0.5
Other	5,038	46.1
Total	**10,924**	**100.0**

a- Includes *Bt* strains, imidachloprid, B-cyfluthrin, fipronil, d-trans Allethrin, tralomethrin, lambda-cyhalothrin, Deltamethrin, and Abamectin, among others.

Private-label activity

Private-label products are of relatively little importance in this product category, in large part because of the dominance of Ortho, Spectracide, Raid, and other well-known brands. Kmart is the leading marketer of private-label outdoor insecticides. Contract manufacturing is growing in importance as some suppliers have decided to distance themselves from actual pesticide production. Aerosols are also likely to be contracted out, as these products require specialized production capabilities. In total, private-label products are estimated to account for less than 10% of marketers' sales.

PRICES AND MARGINS

Retail margins for outdoor insecticides typically range between 35% and 40%.

Table 5A-5: Retail Prices of Selected Consumer Outdoor Insecticides in the United States, 2011

Brand	Marketer	Form	Size	Retail price, $
Amdro Ant Block	Central Garden & Pet	Granule	24 oz	13.97
Bayer Advanced 24 Hour Grub Killer Plus	Bayer	Granular	10.00 lb	17.99
Bayer Advanced Complete Insect Killer for Gardens RTU	Bayer	Liquid	32 fl oz	12.97
Bayer Advanced Complete Insect Killer for Lawns Ready To Spray	Bayer	Liquid	32 fl oz	12.97
EcoSmart Organic Home Pest Control	EcoSmart	Liquid	64 oz	9.99
GardenTech Over 'n Out Fire Ant Killer	Central Garden & Pet	Granule	10.00 lb	14.98
GardenTech Sevin Insect Killer Concentrate	Central Garden & Pet	Liquid	32 fl oz	14.92
GrubEx	Scotts	Granular	14.35 lb	20.16
Ortho Bug-B-Gon Insect Killer Concentrate	Scotts	Liquid	32 fl oz	7.97
Ortho Bug-B-Gon MAX Insect Killer	Scotts	Granule	20.00 lb	14.97
Ortho Hornet & Wasp Killer	Scotts	Aerosol	15 oz	5.99
Spectracide Ant Shield	Spectrum Brands	Granule	3 lb	7.97
Spectracide Once & Done Insect Killer	Spectrum Brands	Granule	10.00 lb	7.97
Spectracide Triazicide Insect Killer Concentrate	Spectrum Brands	Liquid	1 qt	7.88

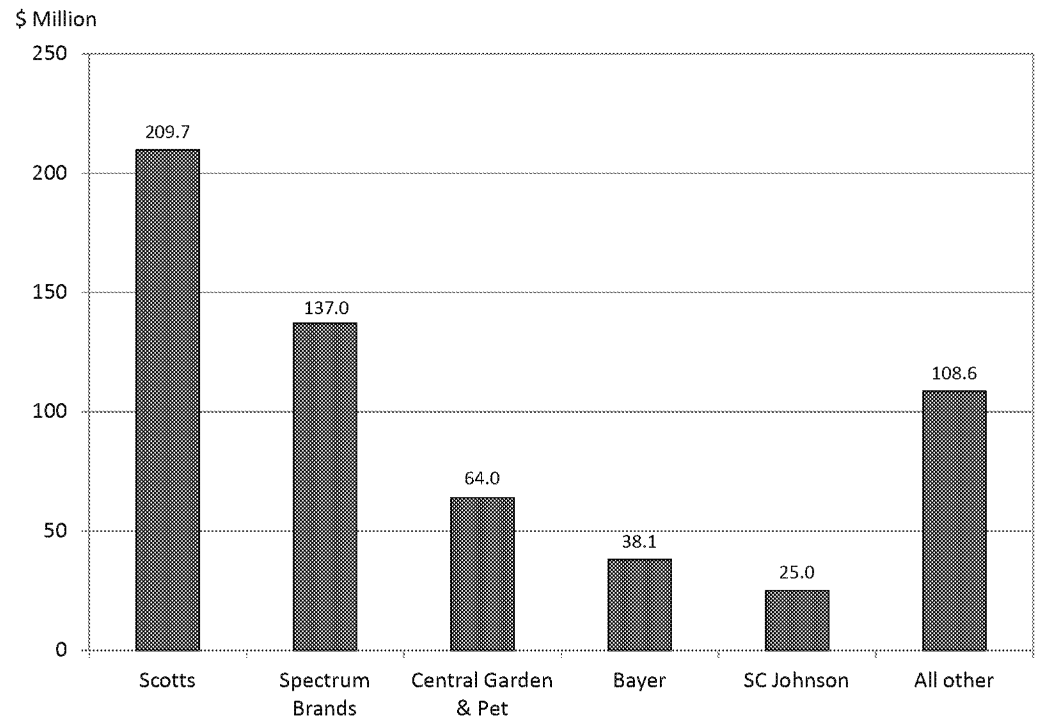
PACKAGING

Aerosol canisters typically range from 10 oz to 17.5 oz in size and often have childproof caps. Liquids are sold in either glass or plastic bottles, depending on the chemical ingredients of the contents. Sizes range from 8 oz to 128 oz, and some bottles (usually the smaller sizes) have pump spray tops. The use of plastic bottles is standard in the industry. Glass has been almost completely phased out because a broken glass bottle can release a potentially harmful or damaging quantity of pesticide. Ready-to-use (RTU) liquids come in plastic containers, often with plastic hose-end spray or ready-to-spray applicators. Dusts are typically packaged in plastic squeeze bottles or shaker canisters, and granules in paper bags reinforced with plastic.

COMPETITION

Scotts was the leading U.S. marketer of outdoor insecticides for consumer use in 2011, with 36.0% of sales in this segment, followed by Spectrum Brands with 23.5%. Central Garden & Pet ranks third with 11.0%. The remainder of the market is fragmented.

Figure 5A-1: U.S. Sales of Consumer Outdoor Insecticides by Major Marketer, 2011



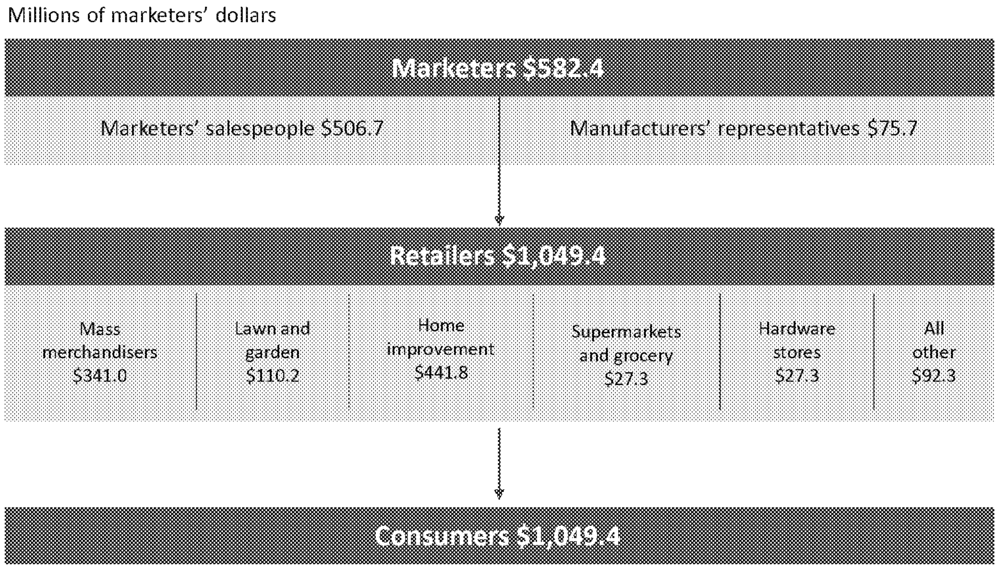
Total: $582.4 Million

DISTRIBUTION CHANNELS

Marketers' sales representatives account for approximately 87% of total sales. Manufacturers' representatives account for the remaining 13%. Home improvement centers have passed mass merchandise stores as the leading retail outlets for outdoor insecticides, accounting for 42% of sales in 2011. Mass merchandise stores rank second with about 32% of sales, followed by lawn and garden centers with about 10%.

Table 5A-6: U.S. Sales of Consumer Outdoor Insecticides by Major Marketer and Brand, 2011			
Brand(s)	**Company**	**$ Thousand**	**% Of total**
Ortho	The Scotts Company	209,745	36.0
Hot Shot, Rid-a-Bug, Spectracide, Black Flag	Spectrum Brands	136,980	23.5
Amdro, Lilly Miller, Cooke, Maxide, Knockout, Grant's, Over n' Out	Central Garden & Pet	64,000	11.0
Bayer Advanced	Bayer	38,079	6.5
Raid, Raid Max	S.C. Johnson	25,000	4.3
Green Light	Green Light	11,800	2.0
Bonide	Bonide Chemical	10,125	1.7
Terro	Senoret Chemical	8,500	1.5
Gordon's	PBI/Gordon	8,400	1.4
Surrender, Martin's, Protech	Control Solutions	7,500	1.3
Safer, Poison-Free, Concern	Woodstream	7,000	1.2
Ferti-lome	Voluntary Purchasing Group (VPG)	6,942	1.2
Mosquito Dunks	Summit Chemical	4,500	0.8
Bengal	Bengal Products	4,214	0.7
Enforcer	Zep Inc.	4,366	0.7
Southern Ag	Southern Ag Insecticides	2,700	0.5
Monterey	Monterey	2,600	0.4
Milky Spore, Sharpshooter	St. Gabriel Organics	2,513	0.4
Dexol, Black Leaf	Value Garden Supply	2,500	0.4
Andersons, Fortify	The Andersons	2,030	0.3
Earth-tone	Espoma	1,880	0.3
Howard Johnson	Howard Johnson's Enterprises	1,000	0.2
All other	-	20,000	3.4
Total		**582,374**	**100.0**

Figure 5A-2: Estimated U.S. Distribution of Consumer Outdoor Insecticides, 2011



The channel data shown in Figure 5A-2 reflect the number of respondents that purchase the product category in each type of outlet. This historical method does not take into account the impact of income differences on channel revenue. To account for that impact, beginning in 2003, this analysis used the respondents with incomes of more than $50,000 a year to reflect the higher disposable incomes spent on lawn, garden, and home products, as well as larger lot sizes associated with these higher-income individuals. Both factors would tend to increase their spending per purchase. Kline & Company has not altered the tabulations shown in this section, but has used only the higher-income respondents to calculate distribution channel importance.

PROMOTION

Scotts' Ortho, Bayer Advanced, Central Garden & Pet, and to a lesser extent, Spectrum Brands, are all supported by both general brand and specific product advertising. Kline estimates that the traceable media spending for the outdoor insecticide category is about $12 million to $25 million in 2010 and 2011, although that number may include some spending for indoor insecticides that cannot be separated from the data. However, most remaining suppliers conduct either small amounts or no direct consumer advertising. Lawn insecticides that are marketed by fertilizer companies receive virtually no promotion because they are provided as a minor part of a line of turf-care products. Details of the spending are shown in the company profiles.

OUTLOOK

Sales in this product category over the past two years has grown slightly after having been flat the previous two years. The increases primarily come from higher prices and increased demand Future growth appears promising due to consumers placing an increasing importance on keeping their yards insect-free. Also, sporadic concern over issues like West Nile virus may bring sizeable fluctuations from time to time.

The increased offering of environmental friendly pesticides, which may be slightly more expensive, will also drive growth in the category as older, more toxic pesticides are eliminated.

Government regulatory activity may limit future sales growth and profitability as increasing pressure is placed on existing insecticides used in this market. The potential loss of the widely used, inexpensive, and generic active materials could drive additional sales growth. In this category, as in several others in the consumer market, there is striking commonality of active ingredients among major suppliers.

Marketers' sales of outdoor insecticides are projected to reach $678.4 million in 2016, an average annual increase of 3.1%.

Table 5A-7: Outlook for Outdoor Insecticides to the U.S. Consumer Market, 2011-2016

Year	$ Million	Average annual growth, %
2011	582.4	-
2016	678.4	3.1

5B. HOUSEHOLD AND HOUSEPLANT INSECTICIDES

Sales of household insecticides are estimated at $494.4 million in 2011, decreasing at an annual average rate of 4.6% from sales of $544.3 million in 2009. This decrease is attributable, in part, to an increase in the number of homeowners who are using pest control operators and, in the opinion of Kline & Company, the effectiveness in baits for both ant and cockroach control.

The following business development activity has occurred in this segment in the reporting period:

- In April 2012, Valent announced an agreement with The Scotts Company wherein Scotts will acquire certain assets of the Green Light Company, including trademarks for the Green Light brands Conquest Insecticide Concentrate, and Yard Safe Insect Repellent, among others.
- As of April 2012, Senoret Chemical Company was acquired by Woodstream Corporation and will operate as a subsidiary.
- In November 2011, Spectrum/United Industries Home and Garden acquired Black Flag and TAT from the Homax Group Inc. (part of the portfolio of Olympus Partners) and added their liquid, aerosol, and baits/traps lines to control ants, spiders, wasps, bedbugs, fleas, roach, fly and yellow jackets. The newly acquired Black Flag consumer products line has four sub-brands: Pesticide Free, Stinging Pests, Crawling Pests, and Flying Pests.

New product introductions in the household insecticide segment include the following:

- PIC Corporation has recently launched Bugables Mosquito Repellent stickers and Twist It Mosquito Repeller. The company also plans to launch specific control products for bed bugs and spiders, both insecticide-free products.
- J.T. Eaton's new products include J.T. Eaton Bedbug Spray for Luggage, a permethrin-based product that kills bedbugs for four to six weeks; Webster Cobweb Duster, a powder coated insecticidal duster.
- In 2010, Control Sollutions launched two products under the Pyrofos brand: Pyrofos 1.5 ULV containing chlorpyrifos to control adult mosquitoes in outdoor areas; and Pyrofos CS which is a micro encapsulated premise insecticide to be used in and around livestock, housing and commercial buildings.
- In 2010, Woodstream launched Safer Brand EndALL.
- In 2009, Woodstream Corporation's Safer Brand released ready-to-spray organic pest control concentrates: Safer Brand Bug Patrol, Mosquito & Tick Killer and Grub Killer are used in ready-to-spray concentrate formulations that connect to a garden hose for simple organic pest control.

PRODUCT DESCRIPTION

Household insecticides are used to kill a variety of flying and crawling insects found in and around the home. Roaches, mosquitoes, ants, fleas, and flies are among the most frequently targeted species. These products are divided into two broad categories based on the length of time that they are effective:

- Nonresidual or space-spray insecticides kill on contact. The active ingredients used in these products decompose to nontoxic substances within a relatively short period of time, reducing the hazards of use near food, food preparation and serving surfaces, pets, and people. These products are generally low in toxicity to warm-blooded animals. They are typically sold as aerosols or pump sprays and are used for both flying and crawling insects.
- Residual insecticides contain ingredients that remain active for a long time. They are usually applied to or placed on surfaces over which insects will pass, and are commonly formulated as liquids and aerosols. Baits and several others work by ingestion rather than on contact. Powders, gels, and other solids are also sold. Residual insecticides are used primarily to kill crawling insects, including roaches, ants, and silverfish.

This category now also includes houseplant insecticides because that segment has declined to the point of being too small to track effectively. Houseplant insecticides are used on indoor and potted outdoor plants to control red spider mites, scales, aphids, white flies, mealybugs, and other pests. These products often contain pyrethrins, and aerosol products are similar in formulation to household insecticides. Many consumers do, in fact, use household insecticides to treat occasional infestations of houseplants. This use of household insecticides is included in this chapter. Combination fertilizer-insecticide products are included in Section 3C, Houseplant Fertilizers.

THE MARKET

Marketers' sales

Marketers' sales of household insecticides are estimated at $494.4 million in 2011, representing an annualized decrease of 4.6%.

Table 5B-1: Sales of Household and Houseplant Insecticides to U.S. Consumer Market, 1999-2011		
Year-a	**$ Million**	**Average annual growth, %**
1999	507.8	(3.7)
2001	537.6	2.9
2003	530.4	(0.7)
2005	525.1	(0.5)
2007	528.6	0.3
2009	544.3	1.5
2011	494.4	(4.6)

a- This study was not conducted in 2000, 2002, 2004, 2006, 2008, or 2010.

Sales by region

Among the regions, the South accounts for the largest percentage of household insecticide sales in 2011, with 43% of the total. The other three regions are closely clustered with percentages of the market ranging from 21% to 18%.

Table 5A-2: Sales of Household and Houseplant Insecticides to U.S. Consumer Market by Region, 2011		
Region	**$ Million**	**% Of total**
South	210.6	42.6
Northeast	101.8	20.6
North Central	95.4	19.3
West	86.5	17.5
Total	**494.4**	**100.0**

Product form

Aerosols are still the mainstay of the household insecticide market, although their sales continue to drop. Ready-to-use (RTU) sprays are increasing in popularity as foggers have seen a complimentary decline.

Table 5A-3: Sales of Household and Houseplant Insecticides to U.S. Consumer Market by Product Form, 2011						
	Million			% Of total		
Product form	Lb	Gal	$	Weight	Volume	Value
Aerosol	74.3	-	187.9	75	-	38
Bait	11.8	-	163.2	12	-	33
Liquid conc.	-	21.0	84.0	-	85	17
RTU	-	3.7	24.7	-	15	5
Fogger	3.6	-	4.9	4	-	1
All other-a	9.1	-	29.7	9	-	6
Total	**98.9**	**24.7**	**494.4**	**100**	**100**	**100**

a- Includes water-soluble powders, granules, dusts, and pest strip products.

Active ingredients

Active ingredients in household insecticides commonly constitute 1% or less of total product weight. Powders based on boric acid are the major exception—these products can have up to 100% active ingredient in composition. Pyrethroids now account for the majority of active ingredient consumption, due to their high degree of mammalian safety and the recent development of improved versions. Insect growth regulators (IGRs), natural pyrethrum, and hydramethylnon account for most of the remainder. Hydramethylnon, the stomach insecticide, is used in many products by Central Garden & Pet.

Table 5A-4: Sales of Household and Houseplant Insecticides to U.S. Consumer Market by Active Ingredient, 2011		
Active ingredient	Thousand lb	% Of total
Pyrethroids-a	534.1	25.5
Residual toxicants-b	1,468.3	70.1
Pyrethrum	81.7	3.9
IGRs-c	4.2	0.2
Hydramethylnon	2.1	0.1
Fipronil	2.1	0.1
Total	**2,092.6**	**100-d**

a- Includes d-trans Allethrin, permethrin, tetramethrin, lambda-cyhalothrin, imiprothrin, cypermethrin, sumethrin, deltamethrin, S-Bioallethrin, and other pyrethroids.
b- Includes boric acid, propoxur, carbaryl and abamectin, among others.
c- Primarily methoprene and hydroprene.
d- Does not add due to rounding.

Private-label activity

Private-label products are not an important factor in this product category. There is relatively little difference in price between private-label and branded products, other than the most premium-priced lines. Branded products receive substantial advertising support. Sales of private-label products are estimated at less than 5% of total sales in 2011. Contract manufacturing, in contrast, is quite significant because many suppliers subcontract the production of aerosols.

PRICES AND MARGINS

Retail margins for household insecticides range from 25% to 35%, although retailers may take lower margins during special promotions. Baits and aerosols generally have the highest margins.

Table 5B-5: Retail Prices of Selected Consumer Household and Houseplant Insecticides in the United States, 2011

Brand	Marketer	Form	Size	Retail price, $
Ant Block	Amdro	Bait	24 oz.	13.97
Bayer Advanced Home Pest Control RTU	Bayer	Liquid	24 oz	5.97
Combat Source Kill Max Ant Gel (one applicator)	Dial Corp	Gel	0.95 oz	4.97
Combat Source Kill Max For Large Roaches	Dial Corp	Bait	8 pack	7.57
Hot Shot Indoor Fogger	Spectrum Brands	Aerosol	3 pack	4.88
Hot Shot MaxAttrax Roach Powder	Spectrum Brands	Dust	1 lb	4.47
Ortho Ant-B-Gon	Scotts	Bait	3 baits	3.47
Ortho Home Defense MAX Perimeter & Indoor Insect Killer RTU	Scotts	Liquid	1 gal	7.47
Raid Ant Baits	S.C. Johnson	Bait	8 pack	4.57
Raid Ant & Roach Killer Aerosol	S.C. Johnson	Aerosol	17.5 oz	3.57
Raid Flying Insect Killer Aerosol	S.C. Johnson	Aerosol	15 oz	4.47
Raid Fumigator Fogger	S.C. Johnson	Fogger	3 X 0.35 oz	13.27
Real-Kill Ant & Roach Killer	Spectrum Brands	Aerosol	17.5 oz	2.37

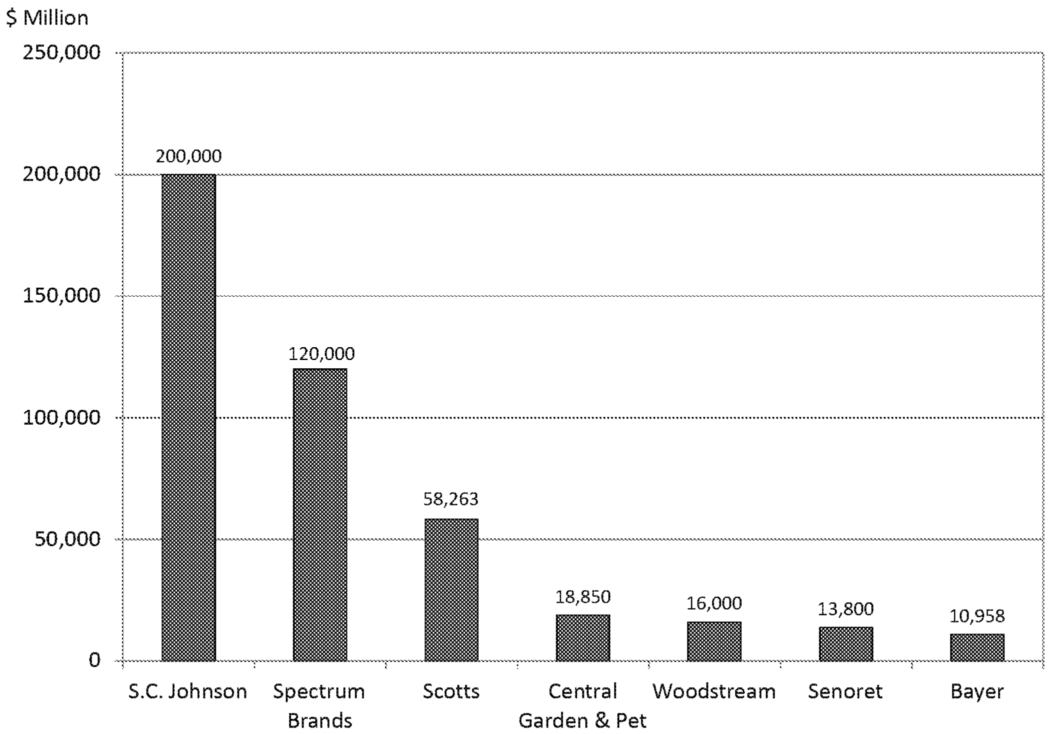
PACKAGING

Aerosol products are packaged in metal canisters ranging in size from 5 oz to 32 oz. RTU pump sprays are sold in plastic bottles from 12 oz to 128 oz. Other liquids are sold in 1 pt to 1.33 gal (5 liter) containers. Bait trays, or stations, are plastic units typically packaged from three to 12 to a box. Foggers are also sold in multiple-unit packages, usually two or three to a set. Baited traps are sold in small plastic stations with pre-drilled holes.

COMPETITION

S.C. Johnson held approximately 41% of the household/houseplant insecticide market in 2011 and is by far the largest marketer of household insecticides in the United States. Spectrum Brands ranks second, with 24.3%, followed by Scotts. The remainder of the market is fragmented among many smaller suppliers.

Figure 5B-1: U.S. Sales of Consumer Household and Houseplant Insecticides by Major Marketer, 2011



Total: $494.4 Million

Kline

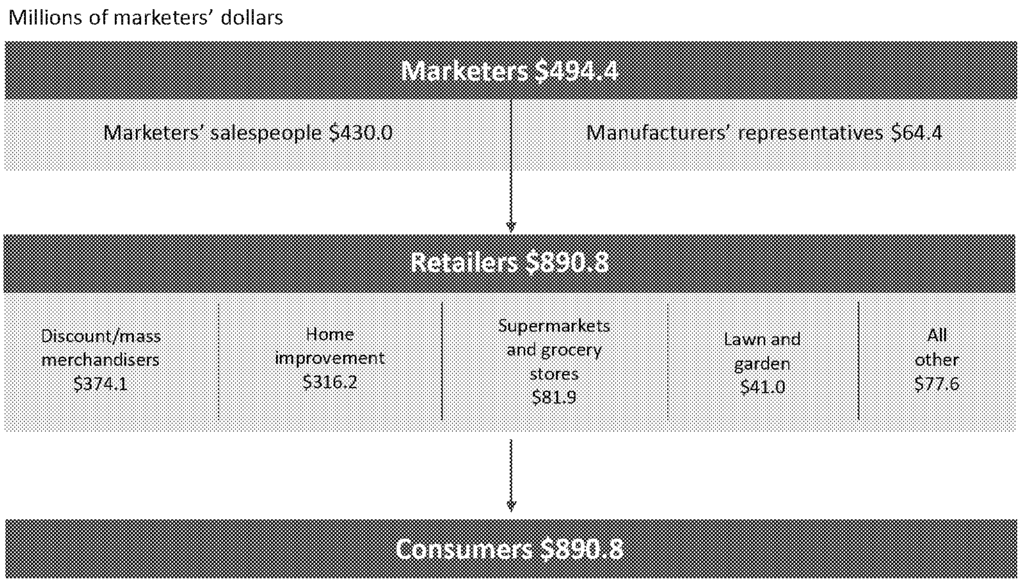
Table 5B-6: U.S. Sales of Consumer Household And Houseplant Insecticides by Major Marketer, 2011

Brand(s)	Company	$ Thousand	% Of total
Raid, Raid Max	S.C. Johnson	200,000	40.5
Terminate, Hot Shot, Bug Stop, Spectracide, Schultz, Black Flag	Spectrum Brands	120,000	24.3
Ortho	Scotts	58,263	11.8
Grants, Zodiac, Farnam	Central Garden & Pet	18,850	3.8
Safer, Poison-Free	Woodstream	16,000	3.2
Terro	Senoret	13,800	2.8
Bayer Advanced	Bayer	10,958	2.2
Combat, Combat Superbait	Dial Corporation	7,900	1.6
Dr. Martin's	Control Solutions	6,000	1.2
Pic	Pic	4,515	0.9
Antmax, Bugmax	Zep, Inc	4,366	0.9
Bengal	Bengal Products	3,161	0.6
Green Light	Green Light	1,900	0.4
Dexol, Gardeners Choice	Value Garden Supply	1,700	0.3
Bonide	Bonide	1,125	0.2
Answer Boric Acid	J.T. Eaton & Company	880	0.2
All other	-	24,992	5.1
Total		**494,410**	**100.0**

DISTRIBUTION CHANNELS

Marketers' salespeople accounted for approximately 87% of total sales in 2011, with the remainder sold by manufacturers' representatives and food brokers. Mass merchandise stores account for an estimated 42% of sales at the retail level. Home improvement centers account for 35%, followed by supermarkets and grocery stores with 9%.

Figure 5B-2: Estimated U.S. Distribution of Consumer Household and Houseplant Insecticides, 2011



The channel data shown in Figure 5B-2 reflects the number of respondents that purchase the product category in each type of outlet. This historical method does not take into account the impact of income differences on channel revenue. To account for that impact, this analysis used the respondents with incomes of more than $50,000 a year to reflect the higher disposable incomes spent on lawn, garden, and home products. This would tend to increase their spending per purchase. Kline & Company has not altered the tabulations shown in this section, but has used only the higher-income respondents to calculate distribution channel importance.

PROMOTION

Household insecticides continue to be promoted, but at a much lower rate than in previous years. This market is marked by a non-loyal customer base, as customers are prone to product switching due to changing needs. In order to keep customers within the supplier's lines, promotions are aimed at differentiating brands from each other, and promote supplier loyalty. "Green" lines of products are moving to the forefront, as advertisements focusing on "natural" active ingredients are becoming more prevalent. Also, new brands have been invented recently that combine insecticides with odor control and/or germ control. The ongoing push toward more green products and packaging can help this market portray their products as "new and improved" to maintain excitement, buzz, and word-of-mouth mentions.

OUTLOOK

Recent years have brought lower sales and tighter margins to household insecticide suppliers. While indoor insecticides have not yet been heavily affected by negative pesticide perceptions, it is unlikely to continue. The "green" evolution of the market and its related new products and packaging will help keep this market's products relevant and sales are predicted to increase slowly in the near future, reaching $551.2 million in 2016, an average annual increase of 2.2%.

Table 5B-7: Outlook for Household and Houseplant Insecticides to the U.S. Consumer Market, 2011-2016

Year	$ Million	Average annual growth, %
2011	494.4	-
2016	551.2	2.2

5C. PET INSECTICIDES

The pet insecticides (flea and tick control) market reaches manufacturers' sales of $1,217.5 million in 2011, an increase over 2009 sales of $1,042.1 million, at an annualized growth rate of 8.4%.

The original three new-generation flea and tick products were distributed exclusively through veterinarians and were introduced in the late 1990s. They were Program/Sentinel from Novartis (1995), Advantage from Bayer (1996), and Frontline from Merial (1996). Based on the active ingredient lufenuron, Program and Sentinel were the first medications introduced. They are once-a-month treatments—an orally administered pill for dogs and a liquid suspension either injected or mixed with wet food for cats—that prevent flea eggs from hatching. Lufenuron does not kill adult fleas or ticks. Advantage, introduced the following year, is based on the active ingredient imidacloprid, and controls both the flea egg and adult stages. Packaged in a small vial, it is applied once a month by squeezing the material onto the shoulder blade area of the dog or on the neck of the cat. Frontline, also in a spot-on formulation, is based on fipronil, and controls both fleas and ticks. Frontline Plus, introduced into the North American market in 2001, contains both fipronil and methoprene and offers protection against all flea life stages for cats and dogs.

Between 2000 and 2006, six active ingredients were removed from the market: chlorpyrifos, dichlorvos, phosmet, naled, diazinon and malathion. While there are two others that are receiving negative press and may be a focus for the EPA going forward. One is the active ingredient tetrachlorylinphos (TCVP) and the other is propoxur. The main issue is the human contact with these topically applied pet insecticides, which can result in illness, especially in children.

In March 2010, the EPA and FDA jointly investigated reasons behind a large increase in the number of negative experiences of pets from Spot On flea and tick products. After nine months of discovery and analysis, it was determined that labels needed clarification, especially with cat/dog interaction after application, quantities administered to smaller animals, inert ingredient sensitivities leading to some incidents, time sensitive registrations requiring constant evaluation were needed, some additional changes on a product by product basis. No products were restricted, and the industry greeted the changes positively.

Since the first three of these products emerged, Pfizer introduced its heartworm, ear mite, and tick product, Revolution, into the veterinary channel. In addition, Novartis introduced a daily pill-form flea product based on the active ingredient nitenpyram under the brand name Capstar. It is used up to once daily to kill fleas on an as needed basis. In 2003, Bayer launched K9 Advantix, a once-a-month topical application containing imidacloprid and permethrin for use against mosquitoes, ticks, and fleas in North America. Recent changes in the flea and tick market segment include the introduction of over-the-counter (OTC) spot-on flea and tick products sold through traditional retail channels.

The following business activity has taken place in this segment since the 2009 edition of this report was published:

- In January 2012, a Japanese firm, Unicharm Corporation, acquired 51% stake in the common share of the Hartz Mountain Corporation, from Sumitomo Corporation.
- The compound patent for fipronil, the active ingredient of Frontline, has expired in 2009 in Japan and in some European countries, including France, Germany, Italy, and the United Kingdom, and in August 2010 in the United States. Frontline products are still protected through formulation patents, however, which expire in 2017 in Europe and 2016 in the United States. The EPA is currently reviewing the re-registration of fipronil.
- In 2011, Sergeant's acquired the rights to a patented pest-control formula from Sumitomo Chemical Co. of Japan. This entitles Sergeant's to the manufacturing and sale of the spot-on pesticidal composition combining fipronil with an insect growth regulator, such as methoprene or pyriproxyfen.
- Central Garden & Pet combined the research, manufacturing, marketing, and product development expertise of their Wellmark and Farnam companies into a strategic business unit known as Central Life Sciences. Central Life Sciences encompasses 13 groups: Horse Products, Pet Products, Mosquito Control for Professionals, Fly Control for Production Livestock, Pest Management for Professionals, Pest Control in Rural Settings, Stored Commodity Insect Control, Greenhouse Nursery Insect Control, Fire Ant Control, Veterinary Products, Varroa Mite Control, Sciarid Fly Control, Midge/Filter Fly Control.
- Bayer expanded its sales channel for animal health products and began selling Advantage Topical Solution and K9 Advantix directly to pet specialty retailer and pet specialty Internet sites in March 2010.
- In July 2009, Sanofi-Aventis agreed to buy Merck's half of the Merial animal-health venture for $4 billion. Merck sold its animal-health assets after the regulators said its purchase of Schering-Plough would make it too dominant in the market. Sanofi had an option to combine Merial with the Intervet/Schering-Plough animal health business to form a new animal heath venture, owned equally between the "new" Merck and Sanofi-Aventis. But Sanofi recognized the value of having Merial on a separate line. In March 2011, Merck and Sanofi-Aventis announced the mutual termination of their agreement to form a new animal health joint venture by combining Merial with Intervet/Schering-Plough.
- In 2010, Pfizer Animal Health acquired Vancouver Island-based Microtek International to mark its foray into vaccines against farmed fish. Pfizer Animal Health also signed a global distribution agreement in 2010 with Epitopix, a manufacturer of animal vaccines, based in Minnesota.

- In February 2010, Virbac closed an agreement with Pfizer Inc. to acquire some of its veterinary products, including a manufacturing facility, in Australia. Virbac acquired rights to Pfizer's portfolio of livestock products marketed in Australia by Fort Dodge Animal Health for use in farm animals, primarily cattle and sheep. In March 2010, Virbac announced a strategic alliance by taking 30% shareholding in Uruguayan laboratory Santa Elena, a 50-year old company producing food-producing animals vaccines, especially for bovine, which are marketed in Uruguay and Latin American countries. In January 2011, Virbac acquired the veterinary assets of the Synthesis company in Colombia. In February 2011, Virbac acquired the distribution rights for Multimin injectable supplements for South Africa and neighboring countries from the Animalia company. In March 2011, the European Commission awarded Virbac the European registration for the vaccine CaniLeish which was launched in May 2011 in the Portuguese market. In May 2011, Virbac acquired the Australian company Peptech.

New flea-and-tick control products introduced into the United States during the reporting period include the following:

- In 2011, Sergeant's launched a generic equivalent of the Frontline in Sergeant's Pet Care Products under the name FiproGuard. Fiproguard is a less expensive version with the same active ingredient as Frontline Top Spot, aimed at the same effectiveness and safety profile more economically.
- Also in 2011, Sergeant's acquired the rights to a patented pest-control formula from Sumitomo Chemical Co. of Japan. This entitles Sergeant's to the manufacturing and sale of the spot-on pesticidal composition combining fipronil with an insect growth regulator, such as methoprene or pyriproxyfen.

PRODUCT DESCRIPTION

Pet insecticides are used to control and prevent flea, tick, and ear mite infestations in dogs and cats, with products formulated to kill fleas accounting for the majority of product use. These insecticides are available as collars and collar tags, shampoos, powders, on-animal sprays, dips, spot-on treatments, and veterinary medications. Most manufacturers also market "off-animal" or premise-control products designed to kill insects in the pet's environment, both indoors and out. Tick repellents for pets are included in this product category. There is some overlap between the pet insecticides, household insecticides, and outdoor insecticides product categories.

THE MARKET

Marketers' sales

Sales of pet insecticides are estimated at $1,217.5 million in 2011 at the marketers' level (before distributor and retailer markups), representing an annualized increase of 8.4% from sales of $1,042.1 million in 2009.

Table 5C-1: Sales of Pet Insecticides to the U.S. Consumer Market, 1999-2011

Year-a	$ Million	Average annual growth, %
1999	771.1	11.5
2001	793.9	1.5
2003	807.0	0.8
2005	932.3	7.8
2007	1,066.7	7.5
2009	1,042.1	(1.2)
2011	1,217.5	8.4

a- This study was not conducted in 2000, 2002, 2004, 2006, 2008, or 2010.

Sales by region

Broken out by region, the South accounts for the largest percentage of sales of pet insecticides in 2011, followed by the North Central and Northeast.

Table 5C-2: Sales of Pet Insecticides to the U.S. Consumer Market by Region, 2011

Region	$ Million	% Of total
South	480.9	39.5
North Central	309.2	25.4
Northeast	253.2	20.8
West	174.1	14.3
Total	**1,217.5**	**100.0**

Product form

Liquid products continue to represented more than 75% of the market in 2011, as the topical spot-ons and vet medications continue to dominate the flea and tick control market. Tablets for veterinary use rank second with 15% of sales, mainly from Novartis. Collars are a distant third with 5% of sales.

Table 5C-3: Sales of Pet Insecticides to the U.S. Consumer Market by Product Form, 2011

	Million			% Of total		
Product form	**Lb**	**Gal**	**$**	**Weight**	**Volume**	**Value**
Liquids-a	-	5.9	949.7	-	100.0	78.0
Tablets	-	-	182.6	-	-	15.0
Collars	1.8	-	60.9	40.7	-	5.0
Powders	1.7	-	12.2	38.4	-	1.0
All other-c	0.9	-	12.2	20.8	-	1.0
Total	**4.5**	**5.9**	**1,217.5**	**100.0**	**100.0**	**100.0**

a- Shampoos, dips, and topical spot-ons/vet medications.
b- Less than 0.5 million lb.
c- Primarily aerosols, foggers, soaps, combs, and traps.

Active ingredients

As with other markets for insecticides, there is a movement toward finding and using safer alternatives to collars, foggers and powders with active ingredients which are toxic to humans and have delivery methods which increase the possibility of fairly high contact with humans. Spot-on treatments and tablets are heading to the fore and are not competing but are complementary products as the spot-ons provide long term protection and the tablets provide immediate, short term affects. Because of these products have low active ingredient concentrations, their active ingredient pounds are not representative of their sales share. Tetrachlorvinphos (TCVP) is still the largest in terms of active ingredient pounds at 45%. Pyrethrins, used in shampoos, powders and sprays comprise approximately 18% of the active ingredient pounds with the remainder (fipronil, imidacloprid, lufenuron, nitenpyram, selamectin, d-limonene, naled, permethrin, S-methoprene, amitraz, linalool, d-Trans allethrin, and nylar) comprising the balance of the estimated 615,000 pounds of active ingredients in 2011.

Private-label activity

Private-label products are not a significant factor in this category and are estimated to represent less than 2% of marketers' sales in 2011. Flea collars are the products most commonly made under private label.

PRICES AND MARGINS

Prices and margins for pet insecticides can vary significantly by brand and retail outlet. Supermarket and grocery chain margins are usually lowest, averaging between 25% and 30%. Veterinary and pet store margins are highest, typically averaging between 50% and 60%.

Table 5C-4: Retail Prices of Selected Consumer Pet Insecticides in the United States, 2011

Brand	Marketer	Form	Size	Retail price, $
Adams Flea & Tick Dip	Farnam	Liquid	4 oz	19.99
Adams Flea & Tick Shampoo	Farnam	Liquid	12 oz	16.99
Advantage for Dogs 21–55 lb	Bayer	Tablet	4 pack	48.99
Bio Spot Flea & Tick Collar for Dogs	Farnam	Liquid	0.6 oz	7.99
Bio Spot for Large Dogs, 31–60 lb	Farnam	Liquid	3 x 3 ml	9.99
Capstar Flea medicine for Dogs 2–25 lb	Novartis	Tablets	6 pack	34.99
Frontline Plus Large Dogs 45–88 lb	Merial	Liquid	12 pack	119.49
Hartz InControl Advanced Flea & Tick Drops for Dogs	Hartz Mountain	Liquid	3 pack	14.99
Hartz Ultra Guard Home Flea & Tick Fogger	Hartz Mountain	Aerosol	6 oz	5.99
K9 Advantix 100 (for dogs over 55 lb)	Bayer	Liquid	4 x 4.0 ml	58.50
Program Flavor Tabs 21–45 lb	Novartis	Tablets	6 pack	64.99
Revolution for Cats 5.1–15 lb	Pfizer	Liquid	6 pack	91.98
Revolution for Dogs 20.1–40 lb	Pfizer	Liquid	6 pack	94.98
Revolution for Puppy Kitten	Pfizer	Liquid	3 pack	45.99
Sentinel Flavor Tabs Dogs 26–50 lb	Novartis	Tables	6 pack	79.50
Sentry Natural Defense Flea & Tick Household Spray	Sergeant's	Aerosol	12 oz	18.99
Sentry Natural Defense Flea & Tick Squeeze-On for Dogs 15–40 lb	Sergeant's	Liquid	3 pack	14.99
Vet-Kem Breakaway Flea & Tick Collar for Cats	Central Garden & Pet	Collar	0.6 oz	8.59
Zodiac Carpet Powder	Central Garden & Pet	Powder or dust	1 lb	13.99
Zodiac FleaTrol Flea & Tick Collar for Small Dogs, Neck up to 15 inches	Central Garden & Pet	Collar	1.2 oz	5.99
Zodiac FleaTrol Fogger	Central Garden & Pet	Aerosol	3 pack	12.99
Zodiac FleaTrol Spot On 1-2-3 Complete Solution for Dogs 30–60 lb	Central Garden & Pet	Liquid	4 pack	11.99

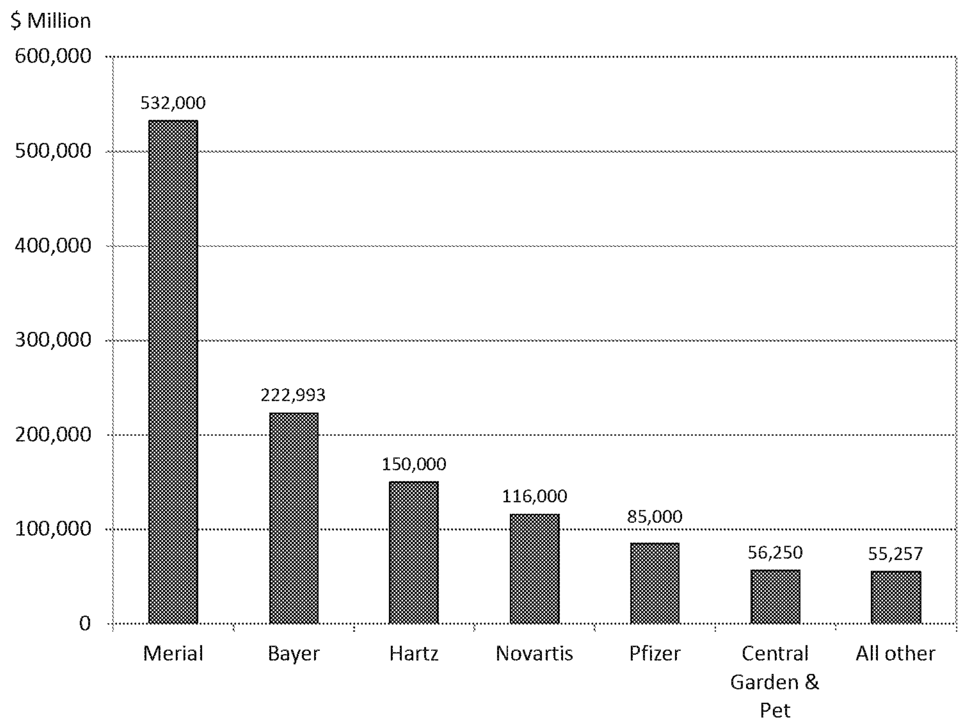
PACKAGING

The packaging of pet insecticides is relatively simple. Collars are packaged in MYLAR or polyethylene bags that are contained in paperboard boxes. Shampoos are packaged in bottles, normally made of plastic, ranging in size from 4 oz to 64 oz. Dips are generally packaged in glass or plastic bottles ranging in size from 1 oz to 4 oz of concentrate. Powders are packaged in paperboard canisters with perforated tops, and foams in metal cans. Spray products are most commonly packaged as 4 oz to 8 oz aerosols and 6 oz to 12 oz pump sprays. Spot-on treatments are packaged in plastic vials.

COMPETITION

The veterinary-distributed flea and tick products continue to dominate sales of pet insecticides. Merial continues to hold the top share with its Frontline product commanding nearly 44% of total sales. Bayer ranks second with a share of approximately 18%, and Hartz, which dominated sales of pet insecticides for many years, ranks third with 12% of total sales. Novartis has dropped to fourth place, followed by Pfizer.

Figure 5C-1: U.S. Sales of Consumer Pet Insecticides by Major Marketer, 2011



Total: $1,217.5 Million

Table 5C-5: U.S. Sales of Consumer Pet Insecticides by Major Marketer, 2011			
Brand	**Company**	**$ Thousand**	**% Of total**
Frontline	Merial	532,000	43.7
Advantage, K9 Advantix	Bayer	222,993	18.3
Hartz, Ultra Guard, Incontrol	Hartz Mountain	150,000	12.3
Program, Sentinel, Capstar	Novartis	116,000	9.5
Revolution	Pfizer	85,000	7.0
Zodiac, Four Paws, Bio Spot, Adams, Scratchex, Sulfodene	Central Garden & Pet	56,250	4.6
Sergeant's, PreTect, Bansect	Sergeant's	22,000	1.8
Preventic, PetRelief, Zema	Virbac	12,400	1.0
All other-a	-	20,866	1.7
Total		**1,217,509**	**100.0**

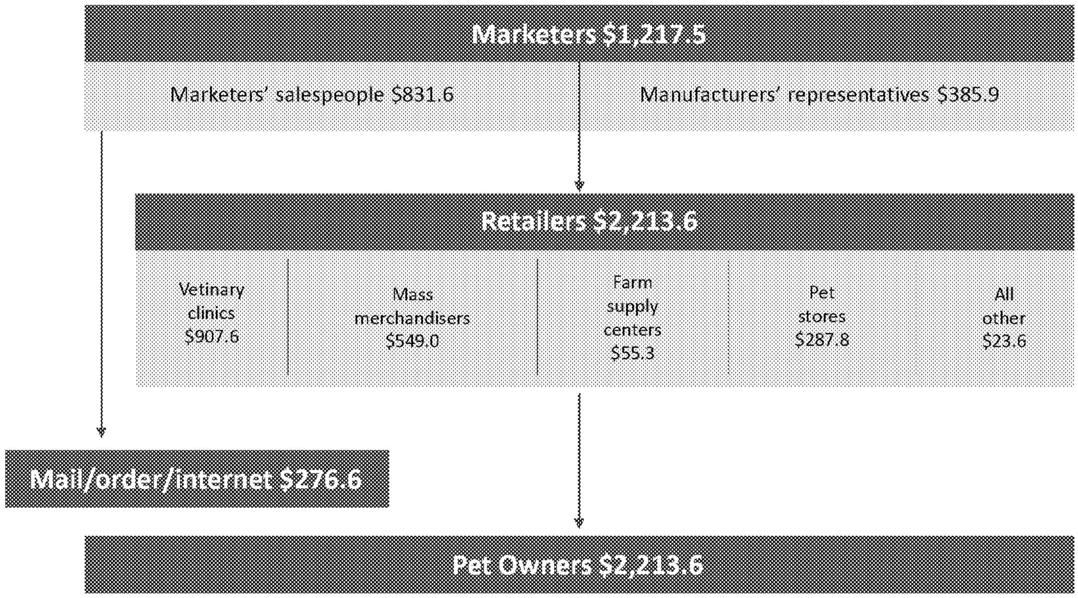
a- Includes Spectrum Brands, Control Solutions, and Zep, among others.

DISTRIBUTION CHANNELS

There is a push by suppliers to increase retail availability of their products. However, with regulations in place, approximately 75% of the total sales dollars of pet insecticides are veterinary medications, and the various retail products account for the remainder. About 40% of respondents earning $50,000 or more annually reported that they purchase their pet insecticides through veterinarians. The higher price of vet medications means those purchases help to raise the dollar sales total for pet insecticide sales. Mass merchandisers and farm supply stores are still important, but the drug store and supermarket category continues to drop off. Pet super stores are increasing in importance, especially with their strong on-line presence, and have a slight nudge from the other online marketers such as Dr Fosters, and 800PetMeds which continue to grow in strength.

Figure 5C-2: Estimated U.S. Distribution of Consumer Pet Insecticides, 2011

Millions of marketers' dollars



PROMOTION

Total traceable media expenses for pet insecticides by the companies profiled in this report are estimated at $63 million in 2011. Merial, the largest supplier of pet insecticides, continues to spend the largest amount on promotion to advertise Frontline and Frontline Plus. Bayer continues to rank second in advertising expenditures to support Advantage and K9 Advantix. Television advertising represented near 80% of the traceable spending by both Merial and Bayer, with the remainder spent for magazines ads.

Promotional practices by the majority of other manufacturers in this product category are directed toward distributors and retailers through trade journals, trade shows, and cooperative advertising programs. These approaches are particularly true of smaller suppliers whose products are marketed primarily to pet stores.

The channel data in Figure 5C-2 reflect the number of respondents that purchase the product category in each type of outlet. This historical method does not take into account the impact of income differences on channel revenue. To account for that impact, since 2003, this analysis uses the respondents with incomes of more than $50,000 a year to reflect the higher disposable incomes spent on lawn, garden, pet, and home products. Both factors would tend to increase their spending per purchase. Kline & Company has not altered the tabulations shown in this section, but has used only the higher-income respondents to calculate distribution channel importance.

OUTLOOK

Because the EPA and FDA have determined that the increased negative incidence from spot-on treatments was largely due to the large increase in usage, the new labeling requirements should not adversely affect sales in the future. As with other insecticide markets, movement toward more natural active ingredients will create some change in the product mix as we move forward. With these changes in mind, it is anticipated that there will be growth, but moderate growth. Estimated marketers' sales of pet insecticides are projected to grow at 2.5% annually until the year 2016 resulting in a total market size of $1,377.5 million.

Table 5C-6: Outlook for Pet Insecticides to the U.S. Consumer Market, 2011-2016

Year	$ Million	Average annual growth, %
2011	1,217.5	-
2016	1,377.5	2.5

5D. INSECT REPELLENTS

Insect repellent sales increase to $347.9 million in 2011, an average annual increase of 3.4% from sales of $325.6 million in 2009. This growth continues to be a function of greater consumer demand, due largely to the need—and perceived need—for protection against mosquitoes carrying West Nile virus, along with the addition of the insect repellent products such as the Off! Clip-On and others.

The following business activity and product introduction occurred within the repellents segment during the reporting period:

- As of April 2012, Senoret was acquired by Woodstream Corporation, and will operate as a subsidiary.
- PIC has recently launched Bugables Mosquito Repellent Stickers and Twist It Mosquito Repeller. The company also plans to launch specific control products for bed bugs, spiders and insecticide-free products.
- In November 2011, Spectrum acquired Black Flag and TAT from the Homax Group Inc. (part of the portfolio of Olympus Partners) and added their liquid, aerosol, and baits/traps lines to control ants, spiders, wasps, bedbugs, fleas, roach, fly and yellow jackets. The newly acquired Black Fag consumer products line has four sub-brands: Pesticide Free, Stinging Pests, Crawling Pests, and Flying Pests.
- In 2011, S.C. Johnson challenged EPA regulations that came into effect in 2006 and involved deep review of pesticide studies that use human subjects. According to S.C. Johnson, such regulations only contribute to stifling and demotivating research efforts in the field of pesticides. S.C. Johnson also added that in addition to the extra cost involved in adhering to the new guidelines, a lot of time is wasted before a chemical ingredient is reviewed by EPA.

In April 1998, the U. S. Environmental Protection Agency (EPA) issued a Reregistration Eligibility Decision (RED) for DEET. After completing a comprehensive reassessment, the EPA concluded that as long as consumers followed label directions and took proper precautions, insect repellents containing DEET did not present a health concern. The EPA, however, no longer allows child safety claims on product labels. These claims had been allowed previously on products containing less than 15% DEET. Other requirements were also issued for labeling DEET products. Labels were to direct parents to not allow children to handle this product. The EPA specified directions for proper use of DEET, including the following statements: Do not use on hands or near eyes and mouth of young children; do not use under clothing; avoid over application of this product; after returning indoors, wash treated skin with soap and water and wash treated clothing. Manufacturers and distributors were required to incorporate labeling changes.

PRODUCT DESCRIPTION

Insect repellents ward off mosquitoes, flies, gnats, ticks, fleas, chiggers, and other blood-sucking insects and deter them from biting. Current research suggests that they work by interfering with the insects' ability to detect prey. Repellents are not effective against bees, wasps, ants, and other stinging insects. They are available in aerosol spray, non-aerosol pump spray, solid stick, lotion (cream and liquid), and towelette form.

THE MARKET

Marketers' sales

Marketers' sales of insect repellents are estimated at $347.9 million in the United States in 2011, an annualized increase of 3.4% from 2009 sales of $325.6 million.

The 1990s were a relatively stable growth period for this market segment, which experienced unfavorable weather conditions in the 1980s, followed by the 1990 cancellation of R-11, a secondary active ingredient found in several formulations, particularly aerosols. Sales showed signs of a strong recovery in 1991 and have continued to grow at an attractive pace since then. More recently, the fear of Lyme disease—and since 1999, West Nile virus—has increased consumers' use of repellent products.

Table 5D-1: Sales of Insect Repellents to the U.S. Consumer Market, 1999-2011

Year-a	$ Million	Average annual growth, %
1999	122.6	7.0
2001	138.2	6.4
2003	177.5	14.2
2005	214.4	10.3
2007	308.7	22.0
2009	325.6	1.7
2011	347.9	3.4

a- This study was not completed in 2000, 2002, 2004, 2006, 2008, or 2010.

Sales by region

Among the regions, the South accounts for the largest percentage of insect repellent sales in 2011, with approximately 35% of the total. The North Central region ranks second with just over 30%, with the other two regions each account for under 20% of the total.

Table 5D-2: Sales of Insect Repellents to the U.S. Consumer Market by Region, 2011

Region	$ Million	% Of total
South	121.4	34.9
North Central	104.7	30.1
West	64.0	18.4
Northeast	57.8	16.6
Total	**347.9**	**100.0**

Product form

Liquid products, including lotions, pump sprays, and roll-ons, collectively, are the most important product form purchased in 2011, accounting for approximately 67% of sales. Aerosols rank second, accounting for about 27%.

Table 5D-3: Sales of Insect Repellents to the U.S. Consumer Market by Product Form, 2011

	Million			% Of total		
Product form	**Lb**	**Gal**	**$**	**Weight**	**Volume**	**Value**
Liquids-a	-	2.3	233.8	-	100	67.2
Aerosols	12.0	-	94.6	89.0	-	27.2
Towelettes	1.5	-	19.5	11.0	-	5.6
Total	**13.5**	**2.3**	**347.9**	**100.0**	**100**	**100.0**

a- Includes lotions, pump sprays, oils, and roll-ons.

Active ingredients

DEET has been the primary active ingredient in insect repellents for many years. First isolated by the U.S. Department of Agriculture (USDA) during research on insect repellents for the U.S. military, DEET has been in widespread use since the 1950s. It is an oily, somewhat sticky liquid with a distinctive smell. Concentrations used typically range from 15% up to 35% in products intended for the backyard or family segment of the market or from 50% to 100% in products targeted at the outdoorsman or sporting segment of the market. Picaridin has replaced DEET in several insect products, but has not gained widespread acceptance because it doesn't last as long on the skin as DEET-based products. It is formulated at rates from 5% to 20%, depending on the formulation. It was developed by Bayer and has been included in the Off!, Skintastic (S.C. Johnson), and Cutter Advanced (Spectrum Brands) brands. Picaridin is a colorless and low-odor active ingredient. Picaridin is also included in three of the Avon Skin-So-Soft Bug Guard products. IR3535 was introduced by Avon and it is currently in four different products within the Skin-So-Soft Bug Guard line. IR3535 has been available in Europe for the last 20 years, but was only introduced in the United States in 1999. The EPA has classified IR3535 as a biopesticide.

Permethrin is also used, but this active ingredient constitutes neither a repellent nor a major part of the market. Permethrin is a true insecticide and is labeled only for application to clothing as a repellent, not to skin. Insect repellents based on citronella or natural oils have been developed, too.

Total consumption of active materials is estimated at 14.7 million lb in 2011, with DEET still accounting for the majority of the total.

Table 5D-4: Sales of Insect Repellents to the U.S. Consumer Market by Active Ingredient, 2011

Active ingredient	Million lb	% Of total
DEET	9.2	62.6
Picaridin	2.1	14.3
IR3535	1.5	10.2
All other-a	1.9	12.9
Total	**14.7**	**100.0**

a- Includes para-Methane-3,8-diol (synthesized lemon eucalyptus oil), permethrin, citronella oil, DMP, natural oil extracts, and a variety of other repellents.

Private-label activity

Private-label products are not a significant factor in this category because of the dominance of the major suppliers, which formulate their own products. Private-label products are estimated to represent less than 5% of marketers' sales.

PRICES AND MARGINS

Retail margins for insect repellents typically range from 35% to 40%.

Brand	Marketer	Form	Size, oz	Retail price, $
Cutter Advanced Sport	Spectrum Brands	Cream	6.00 oz	4.59
Cutter Backwoods Pump Insect Repellent	Spectrum Brands	Pump	4.00	5.99
Cutter Mosquito Repellent	Spectrum Brands	Aerosol	6.00	3.49
Cutter All Family Insect Repellent	Spectrum Brands	Aerosol	6.00	5.99
Cutter Skinsations Insect Repellent Spray	Spectrum Brands	Pump	6.00	3.99
Cutter Family Insect Repellent Cooling Clean Scent	Spectrum Brands	Pump	6.00	6.99
Cutter All Family Mosquito Wipes	Spectrum Brands	Wipes	15 ea	3.97
Repel Eucalyptus Insect Repellent	Spectrum Brands	Liquid	4.00	6.59
Ultrathon Insect Repellent	3M	Aerosol	6.00	6.99
Deep Woods Off! Unscented	S.C. Johnson	Pump	6.00	6.19
Deep Woods Off! Dry Travel	S.C. Johnson	Aerosol	2.50	3.69
Deep Woods Off! Sportsmen	S.C. Johnson	Pump	1.00	6.99
Off! Smooth & Dry	S.C. Johnson	Aerosol	4.00	4.92
Off! Family Care Insect Repellent	S.C. Johnson	Pump	6.00	7.49
Off! Skintastic Insect Repellent for Family	S.C. Johnson	Pump	6.00	5.99
Off! Active Insect Repellent Sweat Resistant	S.C. Johnson	Aerosol	6.00	6.99
Off! FamilyCare Towelettes	S.C. Johnson	Wipes	12 ea	5.99
Off! PowePad Lantern	S.C. Johnson	Lantern	1 ea	22.99
Off! PowerPad refills	S.C. Johnson	Lantern	2/3/0.57 oz	5.99
Off! Yard & Deck Area Repellent Outdoor Fogger	S.C. Johnson	Aerosol	16 oz	8.99
Off! Clip-On Mosquito Repellent Starter Kit	S.C. Johnson	Kit	1 ea	8.98
Off! Mosquito Coil Holder w/4 refills	S.C. Johnson	Coil	4 ea	6.68
Skin-So-Soft Bug Guard Plus with IR3535	Avon	Lotion	4.00	14.00
Skin-So-Soft Bug Guard with Picaridin	Avon	Pump	4.00	12.50

Table 5D-5: Retail Prices of Selected Consumer Insect Repellents in the United States, 2011

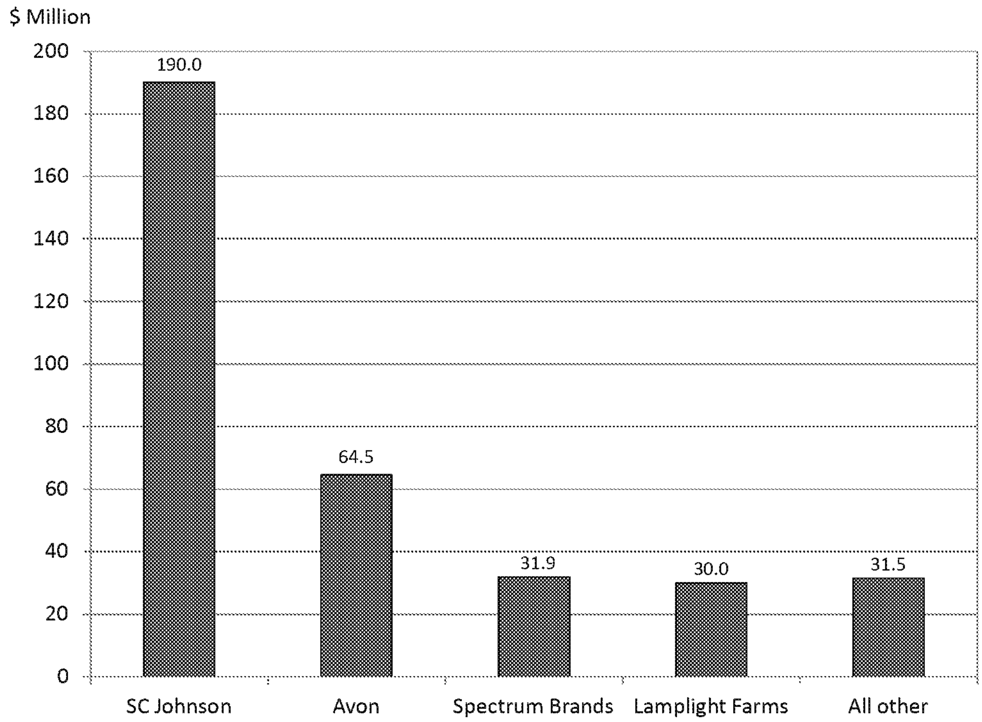
PACKAGING

Aerosols are sold in metal canisters that typically range in size from 6 oz to 12 oz. Pump sprays are packaged in plastic bottles that usually hold from 1 oz to 6 oz of product. Lotions are sold in plastic squeeze or dropper bottles in 1 oz and 2 oz sizes. Towelettes are packaged in plastic containers containing 12 to 20 individual towelettes.

COMPETITION

S.C. Johnson now controls almost 55% of the market with its Off! family of products. Avon, with their Skin-So-Soft Bug Guard family of products, ranks second with 18.5%, followed by Spectrum Brands with 9.2% of total sales in 2011. Lamplight Farms citronella-based products account for approximately 8.6%. A number of small companies account for the remainder.

Figure 5D-1: U.S. Sales of Consumer Insect Repellents by Major Marketer, 2011



Total: $347.9 Million

Table 5D-6: U.S. Sales of Consumer Insect Repellents by Major Marketer, 2011			
Brand	**Company**	**$ Thousand**	**% Of total**
Off!, Deep Woods Off!, Off! Skintastic, PowerPad	S.C. Johnson	190,000	54.6
Skin-So-Soft	Avon	64,500	18.5
Cutter, Repel, Garden Safe	Spectrum Brands	31,860	9.2
Tiki	Lamplight Farms	30,000	8.6
Mosquito Magnet	Woodstream	7,000	2.0
Repel	Central Garden & Pet	3,250	0.9
Pic	Pic Corporation	2,250	0.6
Eagles-7	Bacon Products	1,791	0.5
St. Gabriel Organics	St. Gabriel Laboratories	525	0.2
All other-a	-	16,765	4.8
Total		**347,941**	**100.0**

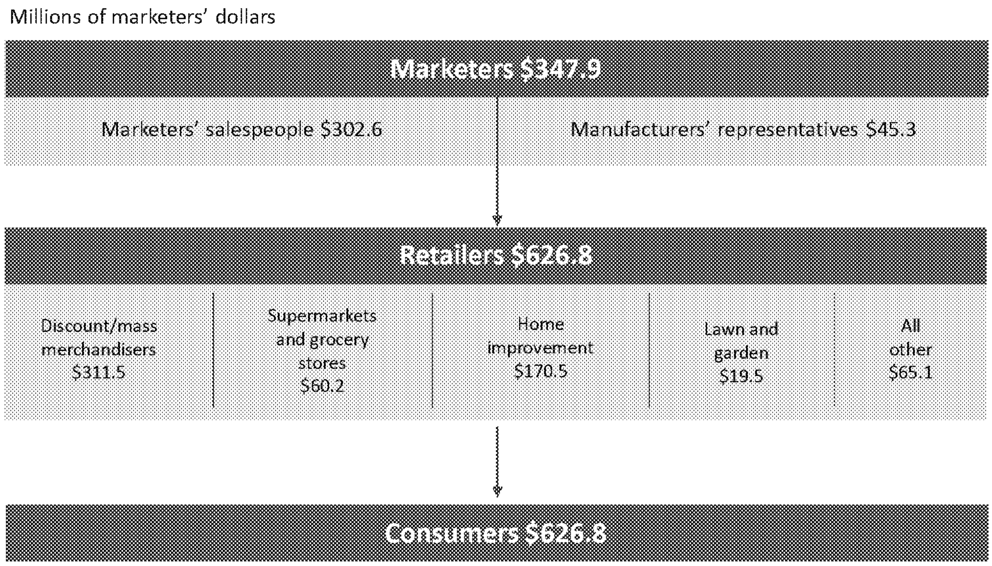
a- Includes Bonide, J.T.Eaton, and others.

DISTRIBUTION CHANNELS

Marketers' sales representatives account for approximately 84% of sales, and manufacturers' representatives and brokers account for the remaining 16%. Approximately 73% of sales are made to retail accounts, 11% to distributors, and 16% directly to consumers or through mail order. This last measure is primarily a result of the Avon Skin-So-Soft sales direct to consumers.

Mass-merchandise stores are the leading retail outlets for insect repellents, accounting for 50% of sales in 2011. Home improvement centers are in a second position with 27%.

Figure 5D-2: Estimated U.S. Distribution of Consumer Insect Repellents, 2011



PROMOTION

S.C. Johnson is the major advertiser among suppliers of insect repellents, spending $16.4 million in 2010 for its various Off! products, but dropped down to $13.2 million in 2011. S.C. Johnson primarily uses television and magazine for its promotional efforts, with virtually all of its promotion expenditures in this media category. Spectrum Brands spent limited advertising money in 2010 and 2011. Smaller marketers, less able to afford broad campaigns, usually concentrate their efforts on in-store displays and targeted print advertisements. Marketers have also attempted to increase product consumption through educational materials, ranging from free pamphlets to newspaper stories that discuss the use of repellents to prevent Lyme disease, Rocky Mountain spotted fever, West Nile virus, and other diseases carried by ticks and mosquitoes.

OUTLOOK

Sales of insect repellents are largely dependent on weather conditions, which affect insect breeding and consumer participation in outdoor activities. Product sales can thus fluctuate significantly from year to year without denoting long-term growth or shrinkage in market potential. Category sales have recently been driven by mosquito populations and the concern over mosquitoes as vectors of the West Nile virus. This concern will likely continue to impact sales in the near future.

Marketers' sales of insect repellents are expected to increase over the next few years as consumer concerns regarding mosquito-borne diseases continue to grow. An annual increase of 2.0% is projected until 2016.

Table 5D-7: Outlook for Insect Repellents to the U.S. Consumer Market, 2011-2016

Year	$ Million	Average annual growth, %
2011	347.9	-
2016	384.1	2.0

6. FUNGICIDES

Sales of fungicides increase 5.9% per year from $50.5 million in 2009 to $56.5 million in 2011. Consumer demand for fungicides has increased in recent years as gardeners, hobbyists, and lawn enthusiasts have gained knowledge of and experience with fungal disease. Homeowners in general, however, often do not recognize fungus damage, or they replace diseased vegetation rather than treat it.

The following business development activity has affected this segment in the reporting period:

- In early 2012, Howard Johnson's Enterprises was acquired by Central Garden & Pet, a Missouri-based manufacturer, marketer, and innovator of lawn and garden products for consumer and professional use.
- In April 2012, Valent announced an agreement with The Scotts Company wherein Scotts will acquire certain assets of the Green Light Company, including trademarks for the Green Light brand family, including Super Bloom, Rose Defense, and others.
- In March 2011, Israel Chemicals Ltd, an Israeli multinational fertilizer and specialty chemicals company, announced that they had completed the purchase of the Global Professional business segment from Scotts. The acquisition included the line of branded products including Osmocote, Sierrablend, and Peters Professional; a large sales and marketing force; R&D resources; as well as several factories and peat mines located in Holland, the United Kingdom, and the United States.

New product introductions in this segment since 2009 include the following:

- Bonide has introduced the following products since 2011: Dragoon Dust with Copper, based on carbaryl and copper; Rose RX 3 in 1 Concentrate; Fung-onil Multipurpose Fungicide based on triadimefon; Sulfur Plant Fungicide; Mancobzeb Concentrate Flowable Fungicide; and Excel Systemic Fungicide, based on natural ingredients.
- In 2011, Bayer introduced Nortica, a biological product that enhances root growth and lawn resistance. Bayer also expanded the naturally derived Natria product line the consumer segment.
- Southern Agricultural has introduced Neem Oil Triple Action (with 70% neem oil) in their organic and natural category.

PRODUCT DESCRIPTION

Fungicides are used to treat plants affected by mildew, blight, rust, mold, black leaf, dollar spot, brown patch, and other diseases. Most products are designed for use on roses, tomatoes, grass, or other specific vegetation, but lawn and multipurpose fungicides are also available.

Lawn products are commonly sold as spreadable granules. Rose and other floral, fruit, and vegetable products are commonly sold in dust, liquid, and, occasionally, aerosol form. Products are also available in dry flowable form, which is similar to a wettable powder, as well as other forms.

Combination products that are primarily marketed as fungicides, but may contain insecticides are included in this chapter. Fertilizer-fungicide combination products are covered in the Fertilizers chapter. Products that are primarily marketed as insecticides, but also contain fungicides are covered in section 5A. Outdoor Insecticides.

THE MARKET

Marketers' sales

Marketers' sales of lawn, garden, and houseplant fungicides in the United States are estimated at $56.5 million in 2011, up 5.9% per year from $50.5 million in 2009.

Table 6-1: Sales of Fungicides to the U.S. Consumer Market, 1999-2011

Year-a	$ Million	Average annual growth, %
1999	23.6	18.2
2001	31.9	17.6
2003	37.5	8.8
2005	40.7	4.3
2007	47.2	8.0
2009	50.5	3.5
2011	56.5	5.9

a- This study was not conducted in 2000, 2002, 2004, 2006, 2008, or 2010.

Sales by region

The Northeast accounts for the most sales in 2011 with $24.1 million.

Table 6-2: Sales of Consumer Fungicides in the United States by Region, 2011

Region	$ Million	% Of total
South	11.9	21.0
Midwest	6.4	11.3
West	14.1	25.0
Northeast	24.1	42.7
Total	**56.5**	**100.0**

Retail shipments

Shipments of fungicides to retail outlets are estimated at 10.0 million lb and 1.2 million gal of formulated product in 2011.

Product form

Liquids are the most popular form of consumer fungicide, accounting for approximately 78% of sales in 2011. Granular products rank second with 20%.

Table 6-3: Sales of Consumer Fungicides to the United States by Product Form, 2011

	Million			% Of total		
Product form	**Lb**	**Gal**	**$**	**Weight**	**Volume**	**Value**
Liquid	-	1.2	44.1	-	100	78
Granular	8.7	-	11.3	87	-	20
All other-a	1.3	-	1.1	13	-	2
Total	**10.0**	**1.2**	**56.5**	**100**	**100**	**100**

a- Includes dusts and wettable powders.

Active ingredients

Consumption of active ingredients is estimated at 2.5 million lb in 2011. Chlorothalonil remains the most widely used active ingredient, accounting for more than half of the total consumption.

Table 6-4: Estimated Volume of Active Ingredients used in Fungicides in the U.S. Consumer Market, 2011		
Active ingredient	**Thousand lb**	**% Of total**
Chlorothalonil	1,295	51.5
Thiophanate-methyl	236	9.4
Triforine	96	3.8
Neem Oil	128	5.0
Myclobutanil	97	3.9
Mancozeb	71	2.8
Tebuconazole	10	0.4
All other-a	577	23.0
Total	**2,510**	**100.0-b**

a- Includes neem oil, propiconazole, fenbutatrin, sulfur, and copper, among other ingredients.
b- Does not add due to rounding.

PRICES AND MARGINS

Retail margins on fungicides average from 35% to 40%, depending on the type of outlet.

Table 6-5: Retail Prices of Selected Consumer Fungicides in the United States, 2011				
Brand	**Marketer**	**Form**	**Size**	**Retail price, $**
Lawn Fungus Control Granules	Scotts	Granular	6.75 lb	15.47
Ortho Garden Disease Control Concentrate	Scotts	Liquid	16 fl oz	14.97
Immunox Lawn Disease Control Ready To Spray	Spectrum Brands	Liquid	32 fl oz	15.97
Garden Safe Fungicide 3 RTU	Spectrum Brands	Liquid	24 fl oz	8.99
Ortho Rosepride, Rose & Shrub Disease Control Concentrate	Spectrum Brands	Liquid	16 fl oz	13.97
Ortho EcoSense Garden Disease Control RTU`	Scotts	Liquid	24 fl oz	7.49
Safer Garden Fungicide RTU	Woodstream	Liquid	32 fl oz	9.99
Bayer Advance Lawn Fungus Control Ready to Spray	Bayer	Liquid	32 fl oz	19.97
Bayer Advance Rose & Flower Disease Control	Bayer	Liquid	32 fl oz	18.99
Garden Tech Daconil	Garden Tech	Liquid	32 fl oz	7.28

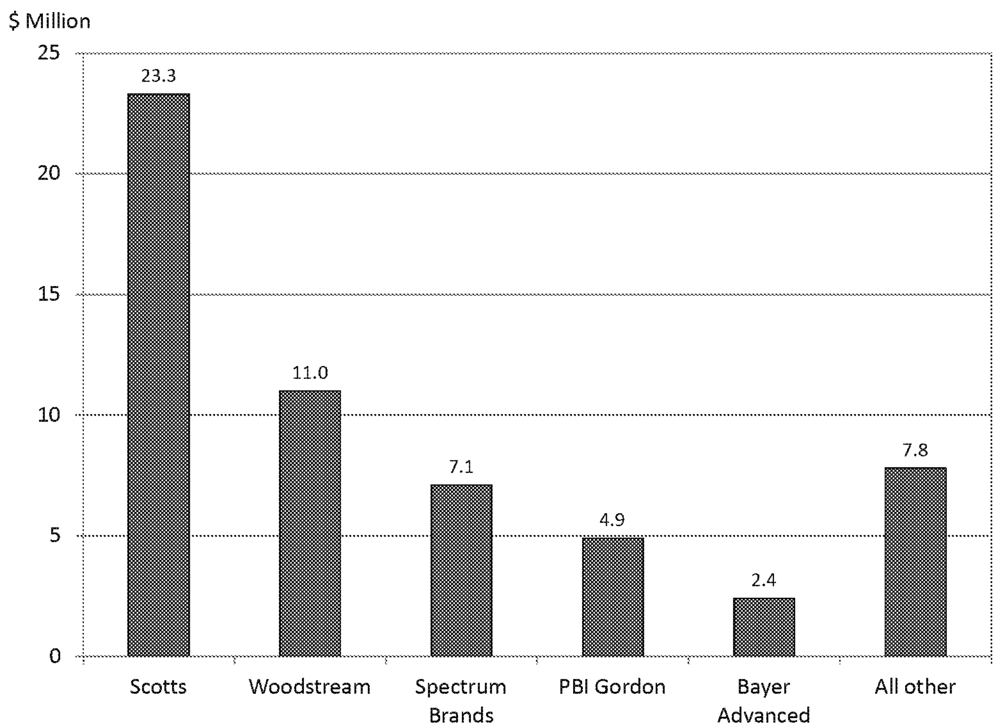
PACKAGING

Lawn fungicides, which are usually granular products, are packaged in polyethylene bags or paper bags reinforced with polyethylene. Garden fungicides are generally sold in paperboard canisters, boxes, or plastic containers. Liquids are packaged in glass or plastic bottles. Dry flowable products are packaged in plastic jugs.

COMPETITION

The Ortho product line, now owned by Scotts, remains the dominant brand of consumer fungicides, accounting for approximately 41.0% of total sales in 2011. Woodstream ranks a distant second with nearly 20.0%, followed by Spectrum Brands with 12.5%.

Figure 6-1: U.S. Sales of Consumer Fungicides by Major Marketer, 2011



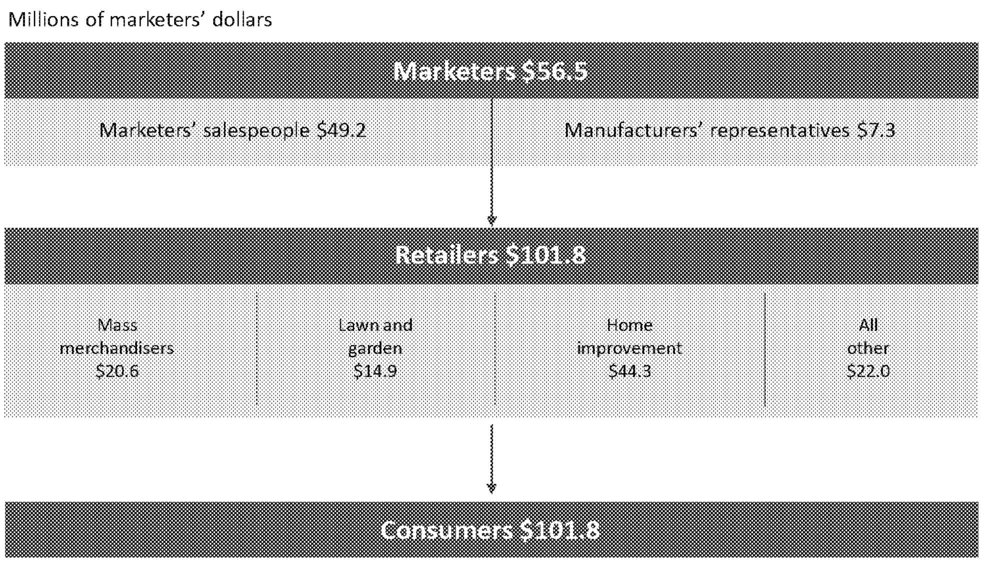
Total: $56.5 Million

Table 6-6: U.S. Sales of Consumer Fungicides by Major Marketer, 2011			
Brand(s)	**Company**	**$ Thousand**	**% Of total**
Ortho, Scotts, EcoSense	Scotts	23,305	41.3
Safer, Concern	Woodstream	11,000	19.5
Spectracide, Garden Safe	Spectrum Brands	7,080	12.5
PBI Gordon	PBI Gordon	4,900	8.7
Bayer Advanced	Bayer	2,367	4.2
Bonide	Bonide	2,250	4.0
Southern Ag	Southern Agricultural Insecticides	2,000	3.5
Green Light	Green Light	1,700	3.0
Lilly Miller, Cooke	Central Garden & Pet	450	0.8
Dexol	Value Garden Supply	400	0.7
All other	-	1,000	1.8
Total		**56,452**	**100.0**

DISTRIBUTION CHANNELS

Marketers' own sales representatives are responsible for about 87% of fungicide sales in 2011. Manufacturers' representatives account for the remaining 13%. Home improvement centers and mass merchandise stores are the leading retail outlets for fungicides.

Figure 6-2: Estimated U.S. Distribution of Consumer Fungicides, 2011



PROMOTION

Fungicides are rarely advertised or promoted, unless they are in combination with other products within a supplier's line.

OUTLOOK

Sales of consumer fungicides are expected to increase slightly, with changes primarily the result of price increase, weather conditions, and gradually increasing knowledge on the part of the consumer. Sales are projected to reach $60.9 million in 2016, an annual increase of 1.5%.

Table 6-7: Outlook for Consumer Fungicides Used in the U.S. Consumer Market, 2011-2016

Year	$ Million	Average annual growth, %
2011	56.5	-
2016	60.9	1.5

7. RODENTICIDES

Sales of rodenticides increase to $174.7 million in 2011, an annual increase of 7.0% from sales of $153.3 million in 2009. Kline believes that continued growth in this segment is caused primarily by the recession, which has caused many consumers to treat for mice and rats themselves rather than use a pest control company.

The only business activity that occurred in this segment during the reporting period is that as of April 2012, Senoret was acquired by Woodstream Corporation, and will operate as a subsidiary.

New product introductions in this segment include the following:

- In 2009, Motomco introduced Agrid3 (vitamin D3 bait) rodenticide for use in organic production. It kills anticoagulant-resistant rats and mice, yet substantially reduces the risk of secondary poisoning. It received an Organic Materials Review Institute (OMRI) Listing for use in organic operations.
- Bonide launched the following new products in 2011: Moletox Baited Gel, based on warfarin; Revenge Mole & Gopher Gasser, based on sulfur and potassium nitrate; Mouse Magic,and Bat Magic, both based on peppermint oil and spearmint oil.
- In 2011, J.T. Eaton was granted the certificate of registration by Canadian patent office for Little Pete Multiple Catch Mouse Trap. J.T. Eaton also received approval notification from the Arizona Department of Agriculture for the use of Bait Blocks with Peanut Butter for use in the control of packrats in 2011. The company recently included a new removable ramp feature into two of its best-selling multiple-catch mouse traps, the Repeater and the Little Pete, which allows the user to clean and place the ramp quickly into the trap.
- In 2010, Woodstream Corp. launched the Victor Kill & Seal Mouse Trap.
- Reckitt Benckiser launched flexible d-CON Bait Paste Pouches and d-CON Quick Kill Glue Traps.

PRODUCT DESCRIPTION

Consumer rodenticides have been greatly affected by legislation from the EPA since 2008. In 2008, the EPA notified suppliers of their intent to eliminate consumer use of highly toxic rodenticides and gave manufacturers until June 4, 2011, to develop new and safer products, like the more expensive active ingredient vitamin D bait products. When June 4, 2011 came, many of the identified products were denied re-listing as they still contained the active ingredients considered highly toxic, and not suitable for consumer application. These products were allowed to be sold until existing stocks as of June 4, are depleted. Reckitt-Benckiser (manufacturer of the d-Con product line) is contesting the ruling in court, so the brodifacoum d-Con products are still available for consumer sale. Currently, the EPA is acting on the elimination of most consumer rodenticides containing brodifacoum, bromadiolone, difethialone, difenacoum, and bromethalin.

Because 2011 was only slightly affected by this legislation, we have not yet seen the large changes that are yet to come. Products containing brodifacoum are most commonly used to kill mice and rats in homes, yards, and outbuildings. Most consumer rodenticides are now based on brodifacoum, a single-dose anticoagulant. Anticoagulants inhibit blood clotting, causing death from internal bleeding, and must be ingested to be effective. The Vitamin D baits affect the calcium absorption of the pest, resulting in calcification and destruction of internal organs. Baits and fumigants for larger, burrowing outdoor rodents like gophers are also included in this product category. Glue and spring traps and other mechanical devices for rodent control are not covered in this study.

THE MARKET

Marketers' sales

Marketers' sales of rodenticides are estimated at $174.7 million in 2011, a 7.0% annualized increase from $153.3 million in 2009.

Table 7-1: Sales of Rodenticides in the U.S. Consumer Market, 1999-2011

Year-a	$ Million	Average annual growth, %
1999	87.9	3.0
2001	88.9	0.6
2003	99.7	6.1
2005	109.0	4.7
2007	116.3	3.3
2009	153.3	15.9
2011	174.7	7.0

a- This study was not conducted in 2000, 2002, 2004, 2006, 2008, or 2010.

Sales by region

The South leads in sales of rodenticides in 2011, accounting for just over 38% of sales, followed closely by the North Central region with almost 25%. The West ranks third with 18.7%.

Table 7-2: Sales of Rodenticides to the U.S. Consumer Market by Region, 2011		
Region	**$ Million**	**% Of total**
South	66.9	38.3
North Central	43.4	24.9
West	32.7	18.7
Northeast	31.7	18.2
Total	**174.7**	**100.0**

Retail shipments

Shipments of consumer rodenticides are estimated at 42.0 million lb in 2010.

Product form

Most consumer rodenticides are formulated as dry baits. Of these, bait packets and pouches are the most popular.

Table 7-3: Sales of Rodenticides to the U.S. Consumer Market by Product Form, 2011				
	Million		**% Of total**	
Product form	**Lb**	**$**	**Weight**	**Value**
Bait packet/pouches	26.9	117.8	64	67
Loose grain/blocks	13.6	51.2	32	29
All other-a	1.5	6.1	4	4
Total	**42.0**	**174.7**	**100**	**100**

a- Chiefly gas cartridges for gophers, other tunneling rodents, and liquids.

Active ingredients

Consumer rodenticides typically contain anticoagulants that cause death by internal bleeding. Only small quantities of active ingredient are needed for product effectiveness. Brodifacoum, a single-dose material, is the most widely used active ingredient. As noted above, the EPA regulations affecting highly toxic active ingredients did not take effect until June 4, but all available stock can still be sold, until depleted. The d-Con product line is not affected as it is still being litigated.

Table 7-4: Volume of Active Ingredients Used for Rodenticides in U.S. Consumer Market, 2011		
Active ingredient	**Lb**	**% Of total**
Brodifacoum	1,240	7.9
Diphacinone	185	1.2
Difenacoum	100	0.6
Bromethalin	82	0.5
Chlorophacinone	52	0.3
Difethialone	31	0.2
Zinc phosphide	12,573	79.7
Bromadiolone	54	0.3
All other-a	1,452	9.2
Total	**15,769**	**100.0**

a- Includes strychnine, cholecalciferol, and other ingredients.

Private-label activity

Private-label products are not a significant factor in this segment of the consumer market due primarily to the relatively low cost of branded products and the overwhelming percentage of the market held by Reckitt Benckiser's d-Con brand.

PRICES AND MARGINS

Retail margins for rodenticides average from 30% to 40% or more from manufacturer to consumer, but can vary significantly because of the variety of retail outlets that stock rodenticide products.

Table 7-5: Retail Prices of Selected Consumer Rodenticides in the United States, 2011				
Brand	**Marketer**	**Form**	**Size**	**Retail price, $**
d-Con Mouse-Prufe II Wedge (4 pack)	Reckitt Benckiser	Block	1.5 oz	4.98
d-Con Rat & Mouse Bait Blocks	Reckitt Benckiser	Block	8 x 20g	4.56
d-Con Ready-Mixed Baitbits	Reckitt Benckiser	Bait	12 oz	4.98
Mice and Rat Bait Chunks	Farnam	Bait	1 lb	5.97
Real Kill Rat Killer	Spectrum Brands	Bait	8 x .75 oz	5.97
Sweeney's Gopher Peanuts	Senoret Chemical	Bait	6 oz	4.97
Tomcat Mouse Killers	Motomco	Block	4 x 1 oz	5.97
Real Kill Mouse Stop	Spectrum	Bait	2 x 0.5 oz	4.97
Victor Disposable Mouse Bait Station	Woodstream	Bait	2 x .75 oz	3.00

PACKAGING

Rodenticides are packaged almost exclusively in cardboard boxes ranging in sizes from 1 oz to several pounds. Products are applied using bait trays or self-contained bait stations, or are placed directly on other surfaces. Metal canisters are used for fumigants for outdoor application.

COMPETITION

Reckitt Benckiser continues as the dominant supplier of consumer rodenticides, controlling 64.1% of the market with the acquisition of d-Con products, including Rat and Mouse Killer and Mouse-Pruff II. Motomco ranks second with 18.6%.

Table 7-6: U.S. Sales of Consumer Rodenticides by Major Marketer, 2011

Brand(s)	Company	$ Thousand	% Of total
d-Con, Mouse-Prufe	Reckitt Benckiser	112,000	64.1
Jaguar, Hawk, Tomcat	Motomco	32,500	18.6
Victor	Woodstream	10,000	5.7
Lilly Miller, Just One Bite	Central Garden & Pet	6,600	3.8
Senoret Chemical	Sweeney's	6,500	3.7
Bait Block, Stick-Em	J.T. Eaton	3,080	1.8
Bonide	Bonide Products	2,250	1.3
Dexol	Value Garden Supply	1,100	0.6
Eagles 7	Bacon Products	632	0.4
Total		**174,662**	**100.0**

DISTRIBUTION CHANNELS

Reckitt Benckiser sells both through its own sales force and through manufacturers' representatives directly to retailers and distributors. Smaller suppliers typically make use of manufacturers' representatives, who in turn sell to distributors. Overall, an estimated 87% of sales are made directly to retailers, with the balance to distributors.

Mass merchandise stores and home improvement centers are the leading retail outlets for rodenticides. Farm supply centers and hardware stores are also important.

Figure 7-1: U.S. Sales of Consumer Rodenticides by Major Marketer, 2011

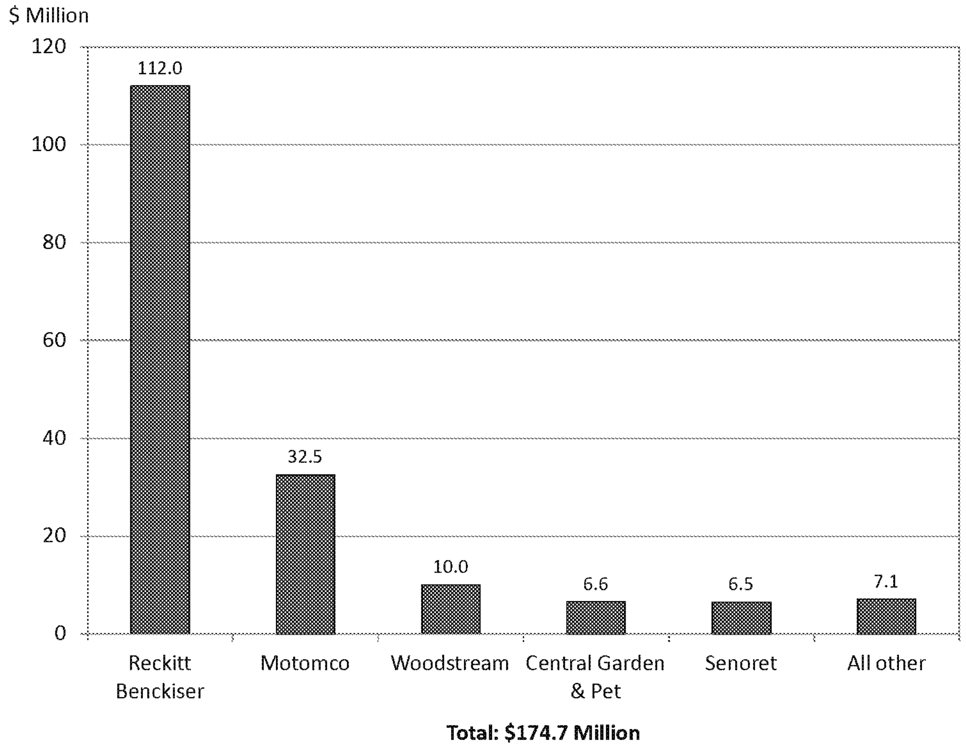
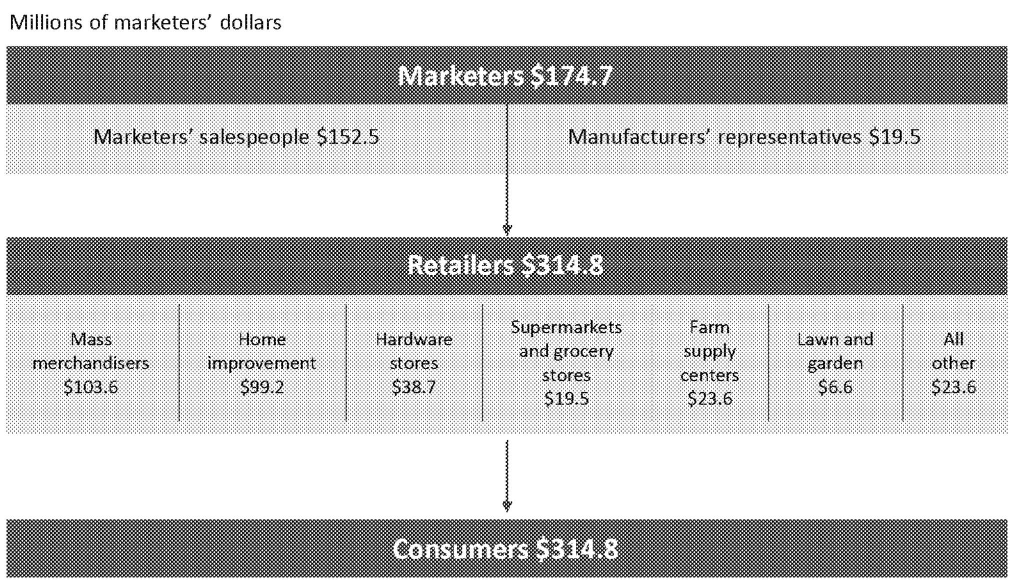


Figure 7-2: Estimated U.S. Distribution of Consumer Rodenticides, 2011



The channel data reflect the number of respondents that purchase the product category in each type of outlet. This historical method does not take into account the impact of income differences on channel revenue. To account for that impact, this analysis used the respondents with incomes of more than $50,000 per year to reflect the higher disposable incomes spent on lawn, garden, and home products, as well as larger lot sizes associated with these higher-income individuals. Both factors would tend to increase their spending per purchase. Kline & Company has not altered the tabulations shown in this section, but has used only the higher-income respondents to calculate distribution channel importance.

PROMOTION

National advertising, coupons, and other forms of product promotion for rodenticides are minimal compared with promotional activity for most other consumer pesticides. Consumers tend to be unresponsive, and Reckitt Benckiser's dominance of this category makes promotional expenditures unrewarding. Most activity is seen in price reductions of brands that have been discontinued. Most of its advertising budget for rodenticides is to network, cable, and spot television advertisements.

In addition, marketers get little in-store support from retailers. The margins on rodenticides are often unattractive to retailers in comparison with other items, the products are unappealing in nature, and purchases are made intermittently and in small quantities. Therefore, rodenticides get poor shelf-space assignments and minimal attention.

OUTLOOK

The rodenticides market will be in a state of change as the active ingredients allowed for consumer use are being developed and marketed. Expect market fluctuation in the near future.

For the next several years, sales of consumer rodenticides are projected to be lower, mostly as the market develops new products to meet the new EPA requirements. However, new active ingredient prices are likely to be higher, so there may be some volume declines which will be offset by modest price increases, resulting in a $166.1 million market in 2016, an annual decrease of 1.0%.

Table 7-7: Outlook for Rodenticides in the U.S. Consumer Market, 2011-2016

Year	$ Million	Average annual growth, %
2011	174.7	-
2016	166.1	(1.0)

8. DISTRIBUTORS

ARETT SALES CORPORATION

OVERVIEW

Arett Sales Corporation was founded in 1951 by Irving and Paula Librett as an exclusive distributor to the retail garden center. During 1993, Arett Sales expanded its business activities by acquiring the lawn and garden portion of Messinger Company of Rochester, NY, and by purchasing the assets of Pascack Sales of Monroe, NY. In 1997, the company moved their warehouse in Waterbury, CT, to Cheshire, CT. In 1998, Arett Sales purchased the Libner Corp and "The Works," which is a dollar store division. In 1999, Arett Sales added a new division called GoodProd, which sells exclusively to the professional lawn care and landscape market. By the end of 1999, there were four additional divisions: Arett OutSource, GoodProd, GreenSmith, and Import.

In 2000, Arett Sales expanded its distribution capacity by 35% by moving the Cheshire facility to a new location in Bristol, CT, with a capacity of 250,000 sq ft. In 2004, Arett Sales added 60,000 sq ft to their warehouse space and also added another 114,000 sq ft in 2007. Also in 2007, Arett Sales purchased the Lose Brothers of Louisville, KY, (serving Ohio, Kentucky, Indiana, and Tennessee) and upgraded their warehouse management system.

Arett Sales is a leading wholesaler of lawn and garden products, still entirely owned and controlled by the Librett family.

TOTAL SALES

Sales for Arett Sales have grown at an average of 5% in the last two years and are estimated at around $164 million in 2011. Sales of consumer pesticides, fertilizers, soils, and soil amendments account for approximately 35% of total sales, or approximately $57 million, with the remaining 65% made up of an assortment of other lawn and garden merchandise, such as planters, tools, and miscellaneous supplies.

Arett Sales' revenues are expected to grow at an average rate of approximately 6.5% in the next five years. Growth will be driven by new products for indoor gardening and hydroponic gardening.

PRODUCTS

Arett Sales distributes a full line of consumer pesticides, fertilizers, and soil amendments. Fertilizers account for the largest volume, followed by pesticides and amendments. The company sells to professional landscapers, independent and chain retail garden centers, hardware stores, home centers, and dollar stores.

Table 8-1: Selected Suppliers Distributed by Arett Sales, 2011

Product category	Supplier
Fertilizers	Easy Gardener (Jobe's)
	Espoma
	Lebanon Seaboard
	Scotts
	Voluntary Purchasing Group
	Woodstream
	Good Eart Horticulture
Pesticides	Bayer Cropscience
	Bonide
	Central Garden & Pet
	Green Light
	Monterey
	Eco Smart
	Senoret Chemical
	Scotts
	S.C. Johnson
	Lebanon Seaboard
	Summit Chemical
	Spectrum Brands
	Voluntary Purchasing Group
	Woodstream
Soil amendments	Espoma
	Scotts
	Spectrum Brands
	Good Earth Horticulture
	Voluntary Purchasing Group
	Lambert Peat

TERRITORY

The company distributes products in 20 locations: Connecticut, Delaware, District of Columbia, Indiana, Kentucky, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, Tennessee, Virginia, West Virginia, and Washington DC.

FACILITIES

Arett Sales is headquartered in Cherry Hill, NJ. The company operates two warehouses in Bristol, CT, and Troy, OH, servicing nine locations and Washington D.C. Arett Sales again increased the square footage of its primary warehouse location in Bristol, CT, for a combined capacity of over 500,000 sq ft. With the new warehouse built in 2008 in Troy, OH, Arett Sales now has a total of 600,000 sq ft of warehouse space.

The company has recently announced its plans to move its corporate headquarters from Cherry Hill, NJ, to Pennsauken, NJ, in an attempt to have a bigger and better equipped office space. The company has also expressed plans to set up a showroom at the new office location, displaying merchandise of the manufacturer's partners.

ADVERTISING

The company participates in cooperative advertising with the manufacturers they represent. Arett Sales hosts trade shows/open houses for garden retailers, exhibiting manufacturers in a booth-type format.

MANAGEMENT AND PERSONNEL

Arett Sales employs about 150 people, with 32 specializing in sales serving 19 states.

Table 8-2: Key Management Personnel for Arett Sales	
Individual	**Position**
Lindsey Vincent Chesbrough	President and CEO
Mauri Librett	Vice President, Marketing & Advertising
Cathy Schappert	Chief Financial Officer
Joyce Baugh	Controller
Mike Mallen	Vice President, Merchandising
James Haber	Marketing Production Director
Neil Shainwald	Vice President, Sales
Sal Intrieri	Vice President, National Accounts

BRADLEY CALDWELL

OVERVIEW

Privately held Bradley Caldwell, Inc. was created from the 1996 merger of Caldwell Supply of Hazleton, PA, and New Holland Supply of New Holland, PA. Both Caldwell Supply and New Holland Supply had long been key regional distributors of consumer fertilizers and pesticides, including lawn and garden herbicides, rodenticides, and pet insecticides. Caldwell Supply was founded by Ralph Caldwell, Sr. in 1930, and New Holland Supply was founded in 1949. The combined company, Bradley Caldwell, distributes pet supplies, equine products, farm supplies, animal health products, pond, wild bird, and lawn and garden products. The company is owned and operated by the Bradley family.

In 2008, Bradley Caldwell acquired the operating assets of Loveland Pet Products, a Mason, OH-based, family-owned company founded in 1924 distributing pet foods and supplies to pet retailers in Ohio, Kentucky, Indiana, Michigan, Pennsylvania, West Virginia, Alabama, Kansas, Missouri, and Illinois. It also offers its products through e-stores. The company was founded in 1924.

TOTAL SALES

Bradley Caldwell's sales are estimated at $140 million in 2011. Consumer pesticides (including pet insecticides and rodenticides), fertilizers, and soils and soil amendments account for approximately 25% of total sales, or approximately $35 million.

PRODUCTS

Bradley Caldwell sells primarily to independent retailers such as lawn and garden centers, "Superstore" retailers, as well as smaller farm and feed stores, pet, and tack shops.

Table 8-3: Major Suppliers Distributed By Bradley Caldwell, 2011	
Product category	**Supplier**
Fertilizers	Alaska Fish
	Bonide
	Espoma
	Easy Gardener (Jobe's)
	Greenview
	Monterey
	Scotts
	Spectrum Brands (Schultz)
	St. Gabriel Labs
	Woodstream
Pesticides	Bonide
	Control Solutions
	Espoma
	Monterey
	Organic Control
	Roxide
	Scotts
	St. Gabriel Labs
	Spectrum Brands (Schultz)
	Senoret
	Summit Chemical
	Tangle Foot
	Woodstream
Pet insecticides	Durvet
	F.C.E.
	Farnam
	Hartz
	Natural Chemistry
	Sergent
	United Pet Group
	Virbac
	Zodiac
Rodenticides	Bonide
	Durvet
	Farnam
	Motomco
	Roxide
	Senoret
Soils and soil amendments	Espoma
	Scotts
	Spectrum Brands (Schultz)

TERRITORY

The company distributes products to 23 states throughout the entire northeastern half of the United States, from Maine to North Carolina and west to Michigan.

FACILITIES

Bradley Caldwell has its headquarters at and maintains distribution facilities in Hazleton, PA. The company claims to store around 27,000 products in eight various categories at its Hazleton warehouse.

The company has also launched the dealer informational software by the name of "BCI Bullseye5," which provides the necessary information to dealers about searching information about different products, inventory availability for each product, sales history, different ordering options of the products like direct shipping, etc.

ADVERTISING

Bradley Caldwell hosts trade shows for dealers, as well as publishing several magazines/hot sheets and various promotions. They also host two trade shows each year, one in February in Hershey, PA, and another in Atlantic City, NJ, in September.

MANAGEMENT AND PERSONNEL

Bradley Caldwell employs approximately 150 people, including 60 sales representatives. The company's sales staff comprises 10 territory managers, a telesales manager with about eight telesales executives for indenting orders and dispatch, in addition to the customer support staff and the field sales representatives.

Table 8-4: Key Management Personnel for Bradley Caldwell	
Individual	**Position**
James L. Bradley	CEO, President
Brian Herring	CFO
Michael Doto	Senior Vice President
James Eshleman	Vice President, Finance
Will Gregory	Vice President, Sales
Roger Johannigman	Vice President
Doreen Straka	Advertising, Events and Sales
Sally McClarie	Buyer, Fertilizers
James Woodall	Buyer, Pet Products
Bruce Hess	Buyer, Rodenticides
Kathy Sponenberg	Buyer, Pesticides

BWI COMPANIES

OVERVIEW

BWI Companies, Inc. was established in 1985 by the Bunch family and grew by adding distribution centers. In 1990, four wholesalers—Bunch Wholesale, Inc.; BWI Jackson, Inc.; BWI Schullenburg, Inc.; and BWI Dallas/Fort Worth, Inc.—were consolidated into Bunch Wholesale, headquartered in Nash, TX. In 1992, the name was changed to BWI Companies, Inc. The company is the leading distributor in the South, ranging from Florida to Texas, and serves a wide variety of retailers. The Bunch family continues to own 100% of the company stock. The company distributes lawn and garden products, horticultural products, and turf products to garden centers, farm stores, hardware stores, grocery, regional multi-store outlets, landscapers, lawn care companies, golf courses, and other related outlets.

In January 2006, CEO Bob J. Bunch received the Lifetime Achievement Award from the LGMDA in recognition of his outstanding contributions, service, and dedication to the lawn and garden industry. Also in 2006, BWI Companies received awards for Trade Show, Accounts Payable, and Overall Relationship for the LGMDA. In 2007, the company received awards for Trade Show and Accounts Payable.

TOTAL SALES

Total sales for BWI Companies are estimated at $320 million in 2011. Sales to consumer markets account for approximately 45% of sales, or $144 million. The remaining sales are to professional and agricultural markets. Of the products sold to consumer markets, about 60%, or $86 million, are estimated to be pesticides, fertilizers, and soils and soil amendments.

PRODUCTS

BWI Companies wholesales a full line of consumer pesticides, fertilizers, soil amendments, livestock and pet and other lawn and garden supplies for retail establishments, professional growers, and professional turf managers.

Table 8-5: Selected Suppliers Distributed by BWI Companies, 2011	
Product category	**Supplier**
Fertilizers	Ferti-lome
	Scotts
	Spectrum Brands
Pesticides	Bonide
	Bayer
	Control Solutions
	Ferti-lome
	GardenTech
	Green Light
	Monsanto
	Scotts
	Spectrum
	Central Life Sciences
	Happy Jack
	Voluntary Purchasing Group
Soil amendments	Ferti-lome
	Green Light
	Medina
	Scotts

TERRITORY

BWI Companies has 14 locations and distributes products across the Mid-south and Southeastern regions of the United States. Most of the sales happen in the states of Alabama, Arkansas, Florida, Georgia, Illinois, Kentucky, Kansas, Louisiana, Missouri, Mississippi, Oklahoma, Tennessee, North Carolina, South Carolina, and Texas. Some border states, however, may not be fully covered.

FACILITIES

The company is headquartered in Nash, TX. It has a total of 15 locations throughout the southern United States, which were gradually added from 1981 to 2001. The company has eight distribution centers, seven ancillary facilities, and sales offices are located in Jackson, MS; Memphis, TN; Carrolton, Houston, Nash, and Schulenburg, TX; Springfield, MO; Greer, SC; and Apopka and Homestead, FL.

ADVERTISING

BWI Companies participates in a number of trade shows and is a member of the Gro Group of Bedford, MA, as well as an organization of 14 wholesale distributors focusing on the home and garden market.

The company also organized a "2012 San Antonio BWI Expo" that was held at Henry B Gonzalez convention center in San Antonio, TX, between September 17-19, 2012.

MANAGEMENT AND PERSONNEL

BWI Companies employs approximately 625 people, including a sales staff of about 125.

Table 8-6: Key Management Personnel for BWI Companies

Individual	Position
Bob J. Bunch	Chairman and Chief Technology Officer
James S. Bunch	CEO, President
Robert H. Bunch	CEO, President
Mike Mize	Executive Vice President
Betty Bunch	Secretary, Treasurer
Mark Fomby-a	Vice President, Sales
Ron Riddle	Marketing Manager, Professional Products
Steve Kollier	Director, HR
Jana Swanson	Chief Information Officer
Steven Zutz	IT Director

a- Member of the Board of Directors of LGMDA.

COMMERCE CORPORATION

OVERVIEW

Commerce Corporation, headquartered in Baltimore, was established in 1923 and is under the ownership of the Lessans family. Commerce Corporation purchased Gardenville Supply, Inc., located in Pipersville, PA, in 1989 and Darbco, Inc., located in Providence, RI, in 1993. Like Commerce Corporation, both of these companies were full-line lawn and garden distributors. Central Garden & Pet acquired one-third interest in Commerce Corporation in 1997.

Commerce Corporation acquired J. Mollema & Sons in 2006, and J. Mollema started doing business as Commerce Corp. DBA J. Mollema & Sons. In 2007, that name designation changed to Commerce Corp – Great West and now operates as a full division of Commerce Corporation.

TOTAL SALES

Commerce's sales are around $200 million in 2011. Sales of fertilizers and pesticides by the company are valued around $65 million, of which around $62 million, or 95%, are sold in the consumer market.

PRODUCTS AND MARKETS

Commerce Corporation offers a full line of consumer fertilizers, pesticides, soil amendments, and other lawn and garden products including seeds, planters, bird food, tools, lighting, furniture, and pond and patio accessories. Commerce distributes through independent garden centers, home centers, and mass merchants. The company's focus is to grow sales through garden centers, which account for around 70% of the total sales. The company has more than 3,000 accounts.

Table 8-7: Selected Suppliers Distributed by Commerce, 2011

Product category	Supplier
Fertilizers	Espoma
	Hoffman
	Jonathan Green
	J.R. Peters
	Lebanon
	Milorganite
	Monterey
	Scotts
	Spectrum Brands (Schultz)
	Knox Fertilizers
Pesticides	Bayer
	Bonide
	Control Solutions
	Greenlight
	Lebanon
	Monterey
	Scotts
	Senoret Chemical
	Spectrum Brands
	Summit Chemical
	Tanglefoot
	Woodstream (Deer-Off)
	Nufarm
	Quali-Pro
	Monsanto
Soils and soil amendments	Hoffman
	JRM Chemical
	Lebanon
	Michigan Peat
	Premier
	Scotts
	Spectrum Brands (Schultz)
	Lambert Soils

NOTE: Some of these suppliers are handled in cooperation with Excel Garden Products, itself the leading distributor (see separate entry).

TERRITORY

Since 2007, Commerce Corporation distributes lawn and garden products in all states in the United States except Alaska and Hawaii. The company's products are sold through approximately 120 stores across the United States, of which 60 to 70 stores are selling company's fertilizer and pesticide products. The acquisition of J. Mollema in 2006 added customers in Michigan, Illinois, Indiana, and Ohio, as well as all of their existing facilities and employees. The company operates five complete regional divisions: Northeast, Mid-Atlantic, Midwest, Great Lakes, and Los Angeles (or West).

FACILITIES

The company is headquartered in Baltimore, MD. The company has five warehouses: two in Baltimore, MD; one in Lincoln, RI; one in Cleveland, OH; and one in Grand Rapids, MI. Total warehouse capacity of the company currently is approximately 950,000 square feet.

MARKETING

Commerce Corporation provides marketing support to vendors in different ways: promotional pricing, display programs, and product knowledge. The company's marketing department is responsible for all product selections. The marketing staff travels every year to different areas in the company's territory, visiting garden centers in an effort to spot trends and preferences. They also attend various industry trade shows. They use the information gathered on these visits to develop more effective product solutions, store programs and merchandizing ideas. The group also works closely with vendors in developing new products and with its global sourcing capabilities to develop new product lines and bring them directly to market.

Commerce Corporation runs many promotions throughout the year. Promotions include ongoing web promotions and customer flyer programs. Once a year, the company publishes endcap grabbers, which offer enhanced buying opportunities that can add margin on already successful products. The company's advertising program includes assistance with claims, layout, and ad design, as well as an extensive selection of readymade print and broadcast ads.

Commerce also participates in trade shows and is a member of a number of associations including the LGMDA and the Gro Group, an organization of 15 wholesale distributors focusing on the home and garden markets. They host two trade shows each year, one in Baltimore in September/October and one in Grand Rapids, also in October. In 2007, the LGMDA voted Commerce National Distributor of the Year, Best Trade Show, Best Sales Staff/Field Support, and Best Overall Customer/Supplier Relationship.

MANAGEMENT AND PERSONNEL

Commerce employs approximately 350 people.

Table 8-8: Key Management Personnel for Commerce	
Individual	**Position**
Richard Lessans	CEO
Malcomb Cork	President
Ralph Rottenberg-a	Executive Vice President
Greg Cote	Vice President, Operations, Support Services
David Mummert	Vice President, Marketing
Jim Rottenberg	Vice President, Purchasing
Ray Sidey	Vice President, Sales, Independent Customers, West
Bill Dittman	Vice President, Sales, East
Julie Goad	Director, Corporate Credit
Amy Meggiolaro	Controller
Carol Jacober	Director, Human Resources
Shawn Parsons	Director of Marketing, East
Tammy Sorg	Director of Marketing, West
Amy Wingertsahn	Director, Commerce Exclusive Brands
Jason Volpe	Director, Ecommerce
Dave Hersl	Director, Transportation
Sean Sheehan	Director, Graphics Support Services
Ashley Willnecker	Brand and Marketing Manager
Dennis Koerner	Vice President, CFO

a- Based in the warehouse in Lincoln, RI.
b- Past president of LGMDA.

EXCEL GARDEN PRODUCTS

OVERVIEW

Headquartered in Santa Fe Springs, CA, Excel Garden Products is a division affiliate of Central Garden & Pet Co., Lafayette, CA, a $1.6 billion publicly held manufacturer of seeds, lawn and garden chemicals, and other products, as well as pet supplies and related products. Central Garden & Pet is divided into two business segments: Pet, and Lawn and Garden. Excel Garden Products is the distribution division of Central Garden that distributes Lawn and Garden products. Central Garden & Pet is discussed in greater detail in the Suppliers chapter.

TOTAL SALES

Central Garden & Pet does not publish sales information for Excel Garden Products since Excel Garden Products only offers the distributional services for Central Garden. Total sales for Excel Garden Products are estimated at $275 million in 2011, all of which comes from lawn and garden products distribution.

PRODUCTS

Excel Garden Products reportedly distributes products made by all major and most middle and small suppliers. The Lawn and Garden segment includes: grass seed, wild bird feed, lawn and garden care products (including chemicals), decorative outdoor patio products (including pottery) and Christmas products, lighting, and insect and pest control products.

Table 8-9: Central Garden and Pet's Brands Distributed by Excel Garden Products, 2011

Category	Product
Herbicides (including weed and moss control)	Knockout, Strike, Lilly Miller, Maxide, Image, Sevin, OvernOut, Rootone, Eliminator (Wal-Mart private label)
Insecticides/pesticides	Amdro and various ant baits, animal repellents, and garden aid products under the Grant's brand name
Fertilizers and soil supplements	Alaska Fish Fertilizer, and various granular and liquids under the Pennington, ProCare, Ironite and other private labels.
Seeds	Pennington and Rebels

TERRITORY

The company sells directly to national and regional retail chains, independent distributors, grocery stores, nurseries, and garden supply retailers throughout the country. Walmart comprises 28% of the Lawn and Garden product sales. Home Depot is responsible for 15% of Lawn and Garden product sales, and Lowe's with 24%. Their largest competitors are the Scotts Company and Spectrum Brands.

FACILITIES

The Lawn and Garden division of Central Garden and Pet operates 22 manufacturing facilities in addition to contracted manufacturing facilities. The company also leases about 17 of its manufacturing sites and 20 of its sales and marketing locations. The Excel Garden Products division has four distribution centers, but is working on consolidating some facilities in the company. Santa Fe Springs, CA, (headquarters) is the largest with about 100 salespeople servicing more than 8,000 accounts in southern California and surrounding mountain states (Arizona, Nevada, Colorado, and Utah). Sacramento, CA, has approximately 30 sales representatives handling around 1,000 accounts in northern California and Nevada. Portland, OR, has approximately 35 salespeople covering Washington, Oregon, and the northern mountain states. Grand Prairie, TX, has about 30 salespeople distributing in the Midwest.

The warehouse of Excel Garden Products at Santa Fe Springs, CA, location has an inventory of over 15,000 different lawn and garden products.

MANAGEMENT AND PERSONNEL

Excel Garden Products employs approximately 470 people with a substantial increase in part-time and temporary employees during the busy months of February through June.

Table 8-10: Key Management Personnel for Excel Garden Products

Individual	Position
William E. Brown	Chairman of the Board and CEO of Central Garden and Pet
Michael Reed	President – Central Garden and Pet
Marilyn Choi	CFO, Garden Group
Jim Doyle	Chief Marketing Officer - Garden
Chuck Yeager	Vice President –Marketing Operations, Garden Group
Paul Duval	Senior VP – Sales Garden Group
Dean Morrison	President - Garden Distribution
Paul Hibbert	Senior VP Distribution and Supply Chain - Garden Group

L&L NURSERY

OVERVIEW

L&L Nursery started in 1953 by producing redwood containers for garden centers throughout Southern California. Over the years, the company developed into one of the leading West Coast distributors and manufacturers of lawn and garden products.

TOTAL SALES

Corporate sales are estimated at $97 million in 2011. Of this, revenue derived from products marketed in the consumer market is estimated at two-thirds of company sales, or about $65 million. In addition to redwood products, L&L Nursery also makes its own brands of potting soil under the Uni-Gro, Uni-Pro, and Sure-Gro labels for the regional market. Altogether, the company distributes more than 7,000 products.

PRODUCTS

L&L Nursery is adding suppliers and product mixes to broaden its product portfolio. The company distributes pesticide products for manufacturers such as Scotts, Spectrum, Bayer, Bonide, Green Light, Amdro, Lillly Miller, GardenTech, PBI Gordon, Woodstream, Safer, Fertilome, and Summit Chemical. It distributes fertilizers for Scotts, Easy Gardener, Spectrum, Bonide, Lilly Miller, Fox Farm, and Grow More; and soil amendments for Scotts, Spectrum, Bonide, Fox Farm, and JRM Chemical. Retailers include nurseries, as well as mass merchandisers and home improvement centers.

Table 8-11: Selected Suppliers Distributed by L&L Nursery, 2011

Product category	Supplier
Fertilizers	Grow More
	Fox Farm
	Easy Gardner
	Scotts
	Spectrum
	Bonide
	Lily Miller
Pesticides	Bayer
	Bonide
	Amdro
	Green Light
	Lily Miller
	GardenTech
	Scotts
	PBI/Gordon
	Spectrum
	Summit Chemical
	Woodstream
	Safer
	Fertilome
Soils and soil amendments	JRM Chemical
	Scotts
	Bonide
	Spectrum Brands (Schultz)
	Fox Farm

TERRITORY

The company has distribution coverage in most of the western states with a focus on California, Arizona, Nevada, New Mexico, Utah, Washington, Oregon, Alaska, Colorado, Idaho, Montana, and Wyoming.

FACILITIES

The largest facility of L&L Nursery located in Chino, CA, houses production, corporate offices, sales office for southwestern region, and the distribution warehouse serving Arizona, Nevada, New Mexico, and California. The company has a sales office in Fremont that serves Northern California and Northern Nevada. The company's facility in Washington houses the sales office and distribution warehouse that serves Alaska, Colorado, Oregon, Utah, Washington, and Wyoming. The combined warehouse capacity of L&L Nursery is more than 240,000 sq ft. In addition, the company has two production facilities located in Chino, CA, and Kent, WA. Overall, L&L Nursery has more than 200 employees.

ADVERTISING

The company participates in a cooperative advertising program with some of the manufacturers it represents. L&L Nursery hosts a dealer trade show in Reno, NV, each October. It also participates in trade shows and is a member of a number of trade associations, including the American Association of Nurseries, California Association of Nurseries and Garden Centers, and the Oregon Association of Nurseries. L&L Nursery is also a member of the Gro Group of Bedford, MA, an organization of 14 wholesale distributors focusing on the home and garden markets.

MANAGEMENT AND PERSONNEL

L&L Nursery employs approximately 250 people, including 27 sales representatives.

Table 8-12: Key Management Personnel for L&L Nursery

Individual	Position
Tom Medhurst	Chief Executive Officer and President
Harvey Luth	Vice President
Rick James	Vice President, Technology
Sandie Eckhardt	Vice President, Finance
Bart Fornfeist	Vice President, Sales and Marketing

V-G SUPPLY CO.

OVERVIEW

V-G Supply Company, originally Vegetable Grower Supply Company, was founded in 1915 in Morton Grove, IL. Headquartered in Park Ridge, IL, this company is one of the largest wholesale distributors for lawn, garden, and nursery supplies in the Midwest. It is a closely held company controlled by the Kotas family.

TOTAL SALES

Total sales of consumer insecticides and lawn fertilizers for V-G Supply in 2011 are estimated at over $55 million, almost entirely for the consumer market, with a limited volume to nurseries.

PRODUCTS

V-G Supply warehouses and distributes a full line of lawn and garden products under the categories of disease control/fungicides, insect control, weed control, lawn fertilizers, grass seeds, soils, plant care, animal/rodent control. The company also distributes a wide range of garden apparel and garden décor products, gardening tools and applicators, landscaping and growing supplies, bird and nature supplies, watering devices, and tree and plant protection products, as well as books on gardening and landscaping. The lawn and garden products distributed by V-G Supply are sold to independent garden centers, mass merchandisers, hardware stores, home centers, and other horticultural businesses.

The bulk of the company's business is wholesaling products from most major firms. The company acts as an agent for these firms and, in addition to serving suppliers, also handles orders for non-stock products that are featured during its annual lawn and garden show.

Table 8-13: Selected Suppliers Distributed by V-G Supply in 2011

Product category	Supplier (brand)
Lawn Fertilizers	Scotts (Ortho and Lawn)
	Lebanon Seaboard Corporation
	Woodstream (Lawn Restore)
	Milorganite Division-MMSD
Pesticides	Bonide
	Scotts (Ortho and Round-up)
	Tanglefoot Company
	Bayer CropScience
	Woodstream (Safer)
	Monterey
	United Industries Corp.
	Espoma
	Ecosmart
	Tech Pac LLC
	Atlas Chemical Corp.
	Roxide International
	J.T. Eaton & Co. Inc.
	Senoret Chemical (Terro)
	Pic Corp.
	Springstar LLC
	Spectrum
	Liquid Fence
	Summit Chemical
	Excel Wellmark
	The Dial Corp. (Combat)
Rodenticides and Animal Repellants	Bonide
	Roxide International
	J.T. Eaton & Co. Inc.
	Senoret (Sweeny_S)
	Pic Corp.
	Liquid Fence
	Shake-Away
	Tanglefoot Company
	Preferred products Inc.
	Reckitt Benckiser
Weedicides	Scotts (Ortho, Round-up, and Miracle-Gro)
	Bayer CropScience
	Lebanon Seaboard Corporation
	Bonide
Soils and soil amendments	United Industries Corp.
	Good Earth Organic Corp. (Hoffman)
	Scotts (Soils)

TERRITORY

V-G Supply has expanded its territory from its traditional Midwest area (Northern Illinois, Michigan, Indiana, Wisconsin, and Ohio) to include Kentucky, Minnesota, North Dakota, South Dakota, and western Pennsylvania.

FACILITIES

The company has combined warehouse facilities with more than 450,000 sq ft in two locations: Calumet City, IL, and Munster, IN. The company claims to have modern, fully functional centralized warehousing system to process and deliver most orders within 72 hours. The company has developed and fine-tuned a completely scan-based warehouse management system aimed at maximizing efficiency and accuracy.

ADVERTISING

V-G Supply is a member of the LGMDA and participates in its trade shows. They also host an annual lawn and garden show. The company is also a member of the Gro Group of Bedford, MA, a network of 15 wholesale distributors focusing on the home and garden market.

MANAGEMENT AND PERSONNEL

The company employs approximately 50 people. In addition, between January and June, and particularly during its annual lawn and garden show, employment of part-time and/or temporary workers may add to a total of 100 or more people.

Table 8-14: Key Management Personnel for V-G Supply

Individual	**Position**
Edward Kotas	President
Ken Koras	Vice President
Tom Doll	Vice President Operations
Justin Glover	Marketing Manager

WETSEL SEED, INC.

OVERVIEW

Wetsel Seed, Inc., headquartered in Harrisonburg, VA, was founded in 1911 by the Wetsel family, which maintained control of the business until 1989. In 1990, the company was purchased by Southern States Cooperative, Inc. of Richmond, VA, and again became independent in 2002. The company sells a diverse mix of products, including lawn and garden supplies to retail garden centers, hardware stores, and home centers; grower materials to greenhouses and nurseries; farm supplies to large contractors and seed producers; and turf supplies to sod growers, golf courses, and sports fields. The company distributes products for approximately 275 manufacturers.

In 2011, Wetsel Seed was acquired by BFG Supply, a distribution company based in Burton, OH, supplying flower, herb, and vegetable seed packets, racks and bulk seed for the lawn and garden industry with 14 service centers covering 17 states in the United States. BFG Supply bought Wetsel Seed Inc. for $1.8 million.

TOTAL SALES

Wetsel Seed's sales are estimated at $40 million in 2011. The company divides its customer base into four groups: Lawn and Garden (retail), Grower Industry, Farm Dealers, and Turf. Sales for the Lawn and Garden group account for about 55%, or approximately $22 million. The remaining 45% is split among the other non-consumer categories.

Sales of pesticides, fertilizers, and soil amendments are estimated at $18 million, or 45% of total sales. Turf and vegetable seed and miscellaneous lawn and garden supplies account for the remaining 55% of lawn and garden sales.

The company estimated sales of $4.5 million of Scott Miracle Gro's products in the United States in 2011.

PRODUCTS

Wetsel Seed sells a full line of consumer pesticides, fertilizers, and soil amendments, including its own brands of fertilizers marketed under the Wetsel and Wesco labels. These two private-label brands account for less than 5% of lawn and garden sales. Wetsel sells the lawn and garden products to garden centers, hardware stores, and home centers. The company handles 17,000 products, 10,000 of which are consumer-oriented products. Wetsel also manages five major catalogs: Dealer, Grower, Turf, Plant Material, and Retail.

Table 8-15: Selected Major Suppliers Distributed by Wetsel, 2011

Product category	Supplier
Fertilizers	Espoma
	Schultz
	Lebanon
	Easy Gardner
	Scotts
	Green Light
Pesticides	Bayer
	Bonide
	Senoret
	Green Light
	Woodstream
	Motomco
	Monterey
	St. Gabriel Organics
	Scotts
Soil amendments	Espoma
	Bonide
	Scotts
	Schultz

TERRITORY

The company distributes products in Virginia, West Virginia, Washington, D.C., Maryland, New Jersey, Pennsylvania, Kentucky, Ohio, Delaware, North Carolina, South Carolina, New York, Indiana, Michigan, and Tennessee.

FACILITIES

Wetsel Seed manages its distribution from two major locations in Harrisonburg, VA, and Kittanning, PA. The company has a combined 220,000 square feet of warehouse space. Wetsel claims to store and stock about 17,000 products in its warehousing locations.

ADVERTISING

Wetsel Seed takes part in trade shows, such as those conducted by the LGMDA of Philadelphia, PA. It is also a member of the Gro Group of Bedford, MA, an organization of 17 wholesale distributors focusing on the home and garden markets, the North American Horticultural Suppliers Association and the American Seed Trade Association. The company also produces the *Westco News* newsletter.

MANAGEMENT AND PERSONNEL

Wetsel Seed employs approximately 125 people, including officers.

Table 8-16: Key Management Personnel for Wetsel Seed

Individual	Position
Floyd Grigsby	President & CEO
Tom Wetsel	Vice President
Wayne Texiere	Purchasing Manager
Jim Lee	Director of Operations
Jennifer Dehoff	Marketing Manager
Heidi Warner	Corporate Sales Manager

WYATT-QUARLES SEED CO.

OVERVIEW

Wyatt-Quarles Seed Company was founded in 1881 as a mail order seed retailer and a division of Job P. Wyatt & Sons of Raleigh, NC. The company is headquartered in Garner, NC. The current chairperson, V. Charles Wyatt, is a descendent of the founder.

TOTAL SALES

Sales of Wyatt-Quarles Seed Co. have declined slightly in the last two years and are estimated at $27 million in 2011. Approximately $17.6 million or 65% of the company's sales takes place in the consumer markets, while the remaining 35% is in the professional market. In the fertilizers category, consumer market sales account for 65% and 35% is accounted by the professional market sales. In total, the company has 1,400 retail customers and sells nearly 15,000 products.

PRODUCTS AND MARKETS

Wyatt-Quarles Seed Co. wholesales a full line of fertilizers, soil amendments, grass and garden seed, and other garden supplies to independent lawn and garden centers, farm centers, and nurseries. The company also sells pesticides, rodenticides, and pet insecticides to consumer markets.

Table 8-17: Major Suppliers Distributed by Wyatt-Quarles, 2011

Product category	Supplier
Fertilizers	Bonide
	VPG (Ferti-lome)
	Scotts
Soils and soil amendments	Black Gold
	Espoma
	Michigan Peat
	Premier
	Scotts
Rodenticides	Loveland
	United Industries (Pursell)
	VPG (Ferti-lome)
Pet insecticides	VPG

TERRITORY

Wyatt-Quarles Seed Co. distributes within a 300-mile radius in North Carolina, Virginia, and South Carolina. They service several dealers in these areas. They have seven outside sales representatives to meet customer requirements in these areas and 11 inside sales representatives.

FACILITIES

The company's warehouse is located at its headquarters in Garner, NC, which was expanded by 18,000 sq ft in 1987.

ADVERTISING

The company conducts co-op advertising with selected retailers and is a member of the Garden Master Group, a regional lawn and garden marketing program.

MANAGEMENT AND PERSONNEL

Wyatt-Quarles Seed Company employs 48 full time employees, with 18 sales representatives.

Table 8-18: Key Management Personnel for Wyatt-Quarles Seed Company

Individual	Position
V. Charles Wyatt	Chairman, President, Treasurer
Joseph G. Moore	Vice President, Sales
Mark Smith	Sales and Marketing Manager

9. SUPPLIERS

THE ANDERSONS, INC.

OVERVIEW

The Andersons, Inc. of Maumee, OH, was founded as a family-run, grain-handling firm in 1947. It became a publicly traded company in February 1996.

The company is a diversified agribusiness and retailing company and is a leader in the regional grain merchandising and agricultural plant nutrient distribution. Its strong position in these basic businesses has allowed the company to diversify into rail leasing, turf-care products, and general merchandise retailing. The Andersons organizes its businesses into five strategic groups: Grain and Ethanol, Plant Nutrient, Retail, Rail, and Turf and Specialty.

The company's largest single business, the Grain and Ethanol Group, operates grain elevators in Ohio, Michigan, Indiana, and Illinois, handling about 170 million bushels of grain each year. In 2005, the company announced its intent to build and operate two ethanol processing facilities, to allow the company to enter the renewable fuels market. By 2008, these two plants had achieved a combined capacity of 165 million gal of ethanol per year. The third ethanol facility began production in February 2011 at Greenville, OH, with a capacity of 110 million gal per year.

Spun off in 2006 from the Grain and Ethanol Group, the Plant Nutrient Group is now a leading formulator and distributor of plant nutrient products in the Eastern Corn Belt and Florida. This group operates 17 agricultural nutrient facilities, three pelletized products facilities, and 10 farm centers in Ohio, Michigan, Indiana, Illinois, Florida, Wisconsin, Minnesota, and Puerto Rico.

The Retail Group operates a total of six traditional home center type stores in Ohio, supplying hardware, plumbing, electrical, and building supplies. The stores also have indoor and outdoor garden centers and automotive and pet supplies, as well as extensive lines of house wares and domestic items, automotive supplies, and specialty food offerings. In April 2007, the group opened The Andersons Market, a specialty food store located in Sylvania, OH, focusing on fresh foods.

The Rail Group repairs, reconfigures, sells, and leases railcars in the United States, Canada, and Mexico. It also offers fleet management services to private railcar owners and operates a custom steel fabrication business. The company's Rail Group has a fleet of around 24,000 railcars and locomotives.

The Turf and Specialty Group manufactures turf and ornamental plant fertilizer and control products for the professional golf and landscaping industries, as well as for lawn and garden uses. It also produces corncob-based products for a variety of uses, including branded products for industrial applications, pet litter products, and chemical carriers. In 2005, the group was renamed (it was formerly called the Processing Group) to focus on areas where it could add value. Its Lawn Division would continue to serve all sectors of the industry, but now has a stronger focus on the professional market. The company determined that the lawn/turf fertilizer business was becoming increasingly high-volume and commodity-oriented, and a shift was made to concentrate in areas where product differentiation and innovation were valued. The company continues to produce high-quality lawn fertilizers and other lawn care products under its own brands.

The Anderson's Turf and Specialty Group has technologies for dispersible granular and liquid products. In 2010, an A+ Health System was launched that features both types of products and an online tool to achieve overall turf health. The Turf and Specialty Group has seven facilities in Alabama, Indiana, and Ohio, with a total of around 420 employees. The group's corn-based products include The Anderson's brands: Bed-o' Cobs and Enrich-o' Cobs.

In 2000, The Andersons purchased the golf course fertilizer business from The Scotts Company. This acquisition provided the company with Scotts' proprietary products, including Pro-Turf, Contec, Poly-S, and other brands, as well as the usage of Scotts' trademarks, patents, and distribution network. The Andersons retained the Scotts trademarks, but markets them under the Andersons Golf Products brand together with its existing product line for this market. In 2005, Andersons Golf Products further strengthened its position in premier golf products with the introduction of SFT-patented technology that improves fertilizer herbicide combinations with less toxicity to the turf. Andersons Golf Products, and also produces third-party exclusive labels for certain retailers and manufacturers.

In 2008, The Andersons acquired Douglass Fertilizer & Chemical, Inc. Generating revenues of $48 million in 2007, Douglass Fertilizers distributes about 140,000 tons of nutrients annually.

In 2009, The Andersons acquired the Fertilizer Division of Hartung Brothers, Inc., as an addition to their Plant Nutrient Group.

The Andersons recently has completed the purchase of Immokalee Farmers Supply, Inc., Immokalee, Fla., a specialty vegetable producer in Southwest Florida. The Immokalee Farmers Supply operations will be a part of The Andersons Plant Nutrient Group's Southern Region.

SALES AND PROFITS

Overall revenue and income for The Andersons had been fairly flat from 1994 through 2001, ranging from $950 million to $1.2 billion in 2011. In recent years, sales have grown strongly to reach more than $3 billion. However, the recession slowed down this growth with total 2009 revenue declining to $3.0 billion from $3.4 billion in 2008. However, sales have again picked up with the growth in the U.S. economy and the expansionary measures adopted by the company. Sales revenues of the grain group business increased by $912.5 million over 2010 revenues because of higher grain prices and the acquisition of B4 Grain, Inc. in December 2010 that accounted for $220.3 million of the increase. The ethanol business of the company also witnessed about 37% increase over 2010 revenues as a result of increase in average price per gallon of ethanol. However, the total volume of ethanol sold in 2010 was relatively unchanged. The plant nutrient and the rail groups have witnessed increase in sales revenue by about 12% and 13% respectively over their 2010 sales revenues. Net profit attributable to The Andersons increased from marginally from $64.7 million in 2010 to $95.1 million in 2011.

Table 9-1: The Andersons' Sales by Business Segment, 2011

Business segment	$ Million
Grain Group	2,849
Ethanol Group	642
Retail Group	158
Plant Nutrient Group	691
Turf and Specialty Group	130
Rail Group	107
Total	**4,577**

Total sales in the Turf and Specialty Group continue to increase to $130 million in 2009 from $124 million in 2010. However, the gross profit of the group decreased from 26.9 million to 26.2 million due to increased average cost per ton due to higher raw material costs. The company plans to launch more proprietary products in the lawn business in 2012 and expect more increase in revenues from the lawn business. Professional products hold around 80% of the division's total sales, with the remaining 20% to the consumer markets.

Sales of consumer fertilizers and pesticides for The Andersons are estimated at $40.6 million in 2011. Of this total, about 50% is attributable to the company's own proprietary consumer brands, and the remaining 50% is third-party brands.

Table 9-2: The Andersons' Estimated Sales of Consumer Pesticides and Fertilizers for Proprietary and Third-party Brands, 2011

Product category	$ Million	% Of total
Proprietary brands	20.3	50
Third-Party brands	20.3	50
Total	**40.6**	**100**

CONSUMER PESTICIDES AND FERTILIZERS

The Consumer Lawn business began as an outgrowth of agricultural fertilizers. The company is one of the largest producers of granular fertilizers in the United States and also makes some liquid products. It is the premier supplier of pesticides on carriers (both fertilizers and inerts). This manufacturing and formulation expertise was used to expand into products for professional and consumer use. The Andersons is well known for its carrier application technology, manufacturing the basic carrier, supplying carrier formulations, and also producing a range of products for its own use, as well as use by third parties.

In addition to its third-party manufacturing business, The Andersons markets fertilizers, granular pesticides, and fertilizer-pesticide combination products under its own brand names. These brands each incorporate several products for lawns and gardens that include fertilizers and fertilizer combinations with pesticides. They are primarily sold to smaller retailers in the Midwest and on the East Coast. The company's philosophy for its own brands is to sell to smaller retailers that cannot justify the cost of establishing their own brand. The Andersons is adept at finding smaller retailers and convincing them of the advantage of selling one or two quality Andersons brands in place of marketing their own or a national brand.

Although The Andersons continues to introduce value-added new products for the professional markets, such as a patented premium dispersible golf course fertilizer, new product activity in the consumer fertilizer and pesticide market is more limited. In 2007, the company introduced Fortify Above and Below, a product that addresses both insects above the soil such as ants, fleas and ticks, as well as grubs below the surface. Fortify Above and Below incorporates a proprietary dispersible carrier. However, there has been no significant product launch in the consumer segment in 2009.

MARKETING POLICIES

The Andersons promotes its consumer fertilizers and pesticides in three ways:

- Directly through its own retail stores and to smaller retailers and landscape centers
- Indirectly through relationships with retailers by manufacturing their store brands
- By contract, as a contract manufacturer for major brands

Approximately 20 internal and manufacturers' representatives market consumer products for The Andersons. The company maintains very close relationships with manufacturers' representatives, in many ways considering them on par with their own sales force.

The Andersons also maintains a website, www.fortifyyourhome.com, which provides details about its consumer fertilizers and pesticides. The website is updated regularly to provide more extensive product information and background on the benefits of fertilization.

In 2007, The Andersons redesigned the Easy Weeder package, incorporating brighter colors and a more detailed description of the product.

The Andersons has recently launched a Turf Nutrition Tool (TNT), which is useful in planning of annual plant health by the turf managers. This significantly helps in optimizing the turf nutrition budgets.

ADVERTISING

There was no TME reported for The Andersons' consumer pesticide and fertilizer products in 2010 and 2011. The company states that it uses magazine, newspaper, and some television and radio advertising, and provides cooperative advertising funds and point-of-purchase displays to retailers to support its brands.

FACILITIES

The Andersons' Turf and Specialty Group's manufacturing facilities are strategically located in the heart of the U.S. turf market. Manufacturing of both branded and exclusive-label consumer fertilizers are performed at facilities in Bowling Green, OH; Maumee, OH; Montgomery, AL; and Delphi, IN. The group also operates a warehouse at Toledo, OH. As of December 2010, The Andersons had around 3,000 employees.

OUTLOOK

The Andersons continues to focus on the Turf and Specialty group with in-house research and development activities targeted towards professional products, with a vision to upgrade its consumer products. The Andersons' consumer fertilizer and pesticide sales are expected to grow by 1.5% per year.

Table 9-3: The Andersons' Consumer Pesticides and Fertilizer Outlook, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	40.6	-
2016	43.7	1.5

AVON PRODUCTS

OVERVIEW

Avon Products is a multi-level marketing company founded in 1886. The company is a manufacturer and marketer of beauty and personal care products worldwide. The company's primary product categories include: Color, which consists of colors for lips and eyes; Skincare, which consists of wide range of products for skin protect, nourishment, and solutions; Fragrance; and Personal Care; Hair Care; and Jewelry. Avon's insecticide products are included within the Personal Care category under the Skin-So-Soft brand.

Avon has sales operations in 64 countries, including the United States, and distributes its products in 41 more. The company markets its products through direct selling and independent representatives, pioneering this sales channel and eventually spawning hundreds of imitators in many different industries. As of early 2011, Avon's direct selling network included approximately 6.5 million active independent Avon Representatives. In certain markets, the company also utilizes distributorships. Avon currently maintains sales operations in 66 countries and territories.

SALES AND PROFITS

Against the backdrop of the global economic crisis, Avon's growth strategy was based on its comprehensive multi-year turnaround plan to decrease expenses and reinvest those savings in initiatives that will generate revenues and increase profitability over the long run. Avon reports total revenue of $11.3 billion in 2011, up by about 4% from $10.9 billion in 2010 and $10.4 billion the prior year. Operating profit decreased to $854.6 million from $1.1 billion in 2010 and $1.0 billion in 2009.

Beauty and cosmetics items are the mainstay of Avon's business, accounting for around $8.1 billion in sales in 2011. This category experienced the biggest revenue growth out of all of Avon's categories, up by around 5% from the prior year. The fashion segment, the second biggest category of Avon, experienced a 1% drop in growth and the home sector experienced a 1% rise in growth.

Table 9-4: Avon Products' Sales by Business Segment, 2011	
Business segment	**% Of sales**
Beauty	71
Fashion	18
Home	9
Other	2
Total	**100**

Avon is present in the consumer fertilizers and pesticides market with its Skin-So-Soft Bug Guard Plus line of insecticides, which are offered in the Beauty division. Sales of Skin-So-Soft Bug Guard Plus are estimated at $64.5 million in 2011.

On a regional basis, North America accounts for Avon's sales of $2.1 billion in 2009, down from $2.2 billion the prior year.

CONSUMER PESTICIDES AND FERTILIZERS

Avon Products' product line named Bug Guard Plus has a number of consumer insecticide products. The Skin-So-Soft product line of the company was initially intended for moisturizers in the 1970s. Over the time, this product line has been extended to a variety of products including makeup remover, nail softener, wood polish, glue remover, ink cleanser, paint remover, shoe polish, baseball glove softener, and insect repellant. The insect repellant product gained much popularity particularly in conjunction with the product's ability to also relieve itching caused by insect bites. Avon eventually introduced a product range branded Skin-So-Soft Bug Guard Plus to repel insects. The Bug Guard Plus products continue to have the Skin-So-Soft name for brand recognition.

Avon's Skin-So-Soft Bug Guard Plus is a relatively new product line of six products:

- Skin-So-Soft Bug Guard Plus Expedition SPF 30 Aerosol Spray
- Skin-So-Soft Bug Guard Plus Expedition SPF 30 Pump Spray
- Skin-So-Soft Bug Guard Plus SPF 30 Cool 'n Fabulous Disappearing Color Lotion
- Skin-So-Soft Bug Guard Plus SPF 30 Gentle Breeze Lotion
- Skin-So-Soft Bug Guard Plus Picaridin Pump Spray
- Skin-So-Soft Bug Guard Plus Picaridin Towelettes

The products contain picaridin, which was developed by Bayer is an alternative to DEFT. Picaridin is used worldwide since 1998 and has been recommended by the World Health Organization as the best protection against malaria.

MARKETING POLICIES

Avon largely relies upon its representatives to market its products, providing them with extensive support in the form of brochures, sales kits, trial sizes and other materials. In order to help the representatives reach to new customers, they are supported with specially designed sales aids, promotional pieces, customer flyers, television and print advertising. The representatives are motivated through special incentive programs that reward superior sales performance.

In 2007, the company launched a comprehensive marketing campaign called "Hello Tomorrow," supporting both the brand and the direct-selling channel. As part of "Hello Tomorrow," Avon's first global integrated marketing campaign, the company signed actress Reese Witherspoon to a multi-year contract as its Global Ambassador. The company has also increased investment to upgrade the quality and size of the brochure in many markets.

The company has made significant investments to understand the financial return of field incentive programs. Periodical sales meetings with the representatives by the district or zone sales managers keep them abreast of product line changes, sales techniques, and provide recognition for sales performances.

ADVERTISING

Although Avon has recently increased its advertising support, this is largely focused on innovative new products and highly popular current lines. The Skin-So-Soft Bug Guard Plus products do not receive significant promotional support.

FACILITIES

Avon Products maintains an extensive global network of facilities. In the United States, manufacturing facilities are located in Morton Grove, IL, and Springdale, OH. Domestic distribution centers are located in Atlanta, GA, Glenview, IL, Newark, DE, and Pasadena, CA.

The company's research and development facility is located in Suffern, NY. Avon has satellite research facilities located in Argentina, Brazil, China, Mexico, Poland, and South Africa. In 2010, the company invested in a research and development facility in Shanghai, China, to develop products to better meet Asian consumers' needs.

Avon Products also leases office space in two locations in New York City and own property in Rye, NY, for its executive and administrative offices. In 2009, the company opened its new distribution center at Zanesville, OH. The new facility will be fully staffed and operational by mid-2010. With the opening of this new facility, Avon is phasing out distribution branches in Newark, DE, and Glenview, IL.

Avon Products employs approximately 42,000 people worldwide. Of these, approximately 6,200 are employed in the United States and 35,800 in other countries.

OUTLOOK

Over the next several years, Avon Products is expected to post strong annual gains in the single digit. Growth will be driven by an increasing focus on marketing and promotion, coupled with introductions of innovative new products and growing consumer awareness of and demand for anti-aging products. A growing network of independent sales will also help expand overall sales. The Skin-So-Soft Bug Guard Plus, however, is unlikely to benefit from this because of relatively lack of support specifically for these products. As this occurs, sales of Avon's consumer insecticides are expected to rise by 1.0% per year to more than $67.8 million in 2016.

Table 9-5: Avon Products' Outlook for Insect Repellents, 2011-2016

Year	$ Million	Average annual growth, %
2011	64.5	-
2016	67.8	1.0

BACON PRODUCTS CORPORATION

OVERVIEW

Founded in 1944, Bacon Products Corporation is based in Chattanooga, TN, and continues to be run by president Reed Bacon, Jr. The company manufactures two lines of consumer pesticides: the Eagles-7 line of household insecticides and the My Buddy line of pet products. Bacon Products also offers a line of bird products including hummingbird feeders and nectar called Hummer's Galore.

SALES AND PROFITS

Overall sales of Bacon Products are estimated at $11.9 million in 2011. The Eagles-7 product range contributes approximately 60% of sales, or $7.1 million. The My Buddy product line accounts for 30%, or $3.6 million. The Hummer's Galore range of bird products accounts for the remaining 10% of sales. Sales of consumer pesticides as covered in this report are estimated at around $10 million in 2011. All products are manufactured under the company's own brands for consumers, with no contract manufacturing or professional product lines.

CONSUMER PESTICIDES AND FERTILIZERS

The company's consumer pesticides include the Eagles-7 insecticides and My Buddy pet products. The Eagles-7 brand of Bacon Products Corporation has a line of 21 product members. It includes:

- Rat Bait, which is a safe anti-coagulant containing warfarin for household use
- Final Bite, which is a more lethal diphacinone anit-coagulant pellet bait
- Last Step Glue Trap, a non-toxic peanut butter catch trap for mice and crawling insects
- Spray Kill, overnight insect kill for in and outdoor use
- Roach Destroyer, an organic boric acid based powder for kill up to one year
- Fogger, water based fogging mist for insecticidal action
- Platinum Plus Fogger, a more powerful fogging product containing Nylar
- Wasp and Hornet Destroyer, spray blast for wasps, hornets, and yellow jackets
- Flying Insect Spray, an indoor and outdoor fogging product for flying insects
- Fire Ant Destroyer, a deltametrin powder for treating up to 30 mounds

- Insect Repellant, pleasant smelling spray for repelling flying insects
- Ant Roach Spider Spray, a water based, 180 days residual kill product
- Septic Clean, a blend of bacteria and enzymes for rapid waste degradation
- Flea and Tick Spray, spray for killing fleas and ticks on dogs and carpets

The My Buddy line has Organic Shampoo with d-limonene to prevent against fleas and ticks and Organic Dip to aid in the control of fleas and ticks. There have been no new product launches in 2011.

MARKETING POLICIES

The consumer pesticides produced by Bacon Products are widely available in hardware, supermarket, mass merchandise, and home stores across the United States. All products are sold by the company's approximately 20 manufacturers' representatives. Bacon Products provides various kinds of marketing support including product brochures, retail displays, and co-op advertising materials.

ADVERTISING

Bacon Products had no TME for 2010 or 2011.

FACILITIES

The company is headquartered in Chattanooga, TN, and employs approximately 18 people. Manufacturing and distribution facilities are also located in Chattanooga.

OUTLOOK

Bacon Products is expected to witness moderate growth in its sales over the next five years. However, the company is not a leader in its market segments and rather offers secondary products. The sales growth is mitigated by the company's lower brand awareness among the consumers. Overall sales of Bacon Products Corporation's consumer chemical products formulated as rodenticides, repellents, and insecticides are expected to expand by 3.8% per year.

Table 9-6: Bacon Products' Outlook for Pesticides by Product Category, 2011 to 2016

	$ Thousand		
Product category	**2011**	**2016**	**Average annual growth, %**
Insecticides	7,592	8,800	3.0
Repellents	1,791	1,977	2.0
Rodenticides	632	733	3.0
Total	**10,015**	**11,510**	**2.8**

9-14 Suppliers

BAYER AG

OVERVIEW

Publicly traded Bayer AG of Leverkusen, Germany, is a leading manufacturer of health care products, polymers, chemicals, and agricultural products. The company entered the market for consumer pesticides and fertilizers in 1996 with the introduction of an imidacloprid-based topical flea-control insecticide called Advantage, and four years later launched the Bayer Advanced lawn, garden, and household pesticide product lines. In 2007, Bayer acquired Schering AG, a Germany-based leader in the development of medicines for human use, for €16.9 billion.

In the United States, Bayer AG operates through Bayer Corporation, which includes sales from all of the operating segments in which the parent company is active.

Table 9-7: Bayer AG's Sales by Business Segment, 2011

Business segment	€ Million	% Of total
Health care	17,169	47.0
Crop science	10,832	29.7
Material science	7,255	19.9
Reconciliation	1,272	3.5
Total	**36,528**	**100.0**

SALES AND PROFITS

In 2011, the Bayer Group reported total sales of a rounded €36.5 billion, or approximately $42.4 billion, on which the company realized a net income of approximately €2.5 billion.

Table 9-8: Bayer AG's Total Sales, 2000 to 2011

	€ Million-a		%	
Year	Sales	Net profits	Margin on sales	Return on equity
2000	30,971	1,816	5.9	11.7
2001	30,275	965	3.2	5.8
2002	29,624	1,060	3.6	6.6
2003	28,567	(1,361)	-	(9.8)
2004	23,278	685	2.9	6.2
2005	27,383	1,597	5.8	11.4
2006	28,956	1,683	5.8	11.5
2007	32,385	4,711	14.5	32.2
2008	32,918	1,719	5.2	10.4
2009	31,168	1,359	4.3	7.7
2010	35,088	1,301	3.7	6.9
2011	36,528	2,470	6.8	13.0

a- 2007 average exchange rate: €1.00 = $1.1595.

CONSUMER PESTICIDES AND FERTILIZERS

Bayer sells herbicides and pesticides for consumer use through its Environmental Science division, which is a part of the Crop Science business unit. Bayer promotes the line as easier to use than other brands and claims to offer simpler use directions. The products feature easy-pour spouts and measuring cups, and easy-to-read front and back labels, all with money-back guarantees. In addition, the products are promoted as being highly effective, with proprietary ingredients that are "fast-acting and long-lasting."

While the products had previously been labeled for lawn, garden or home use, in late 2005, the company removed these specific designations to brand all of its products as simply Bayer Advanced. At the same time, Bayer also discontinued sales of its approximately half dozen fertilizer products. In 2011, Bayer introduced LifeNet mosquito nets and Nortica, a biological product that enhances root growth and lawn resistance. Bayer also launched a number of herbicides based on the newly registered active ingredient Indaziflam for weed control on golf courses, sports grounds, railroad tracks, and roadways. Bayer also expanded the naturally-derived Natria product line the in the consumer business.

The product line now includes the following, most of which are available in a variety of formulations, such as ready-to-use spray and pump forms, concentrate, and granules, among others:

- Lawn products
  - Natria Snug and Snail Killer Bait
  - Season Long Grub Control Plus Turf Revitalizer
  - 24 Hour Grub Killer Plus
  - Dual Action Snail & Slug Killer Bait
  - Fire Ant Killer Dust
  - Powerforce Multi-Insect Killer – Granules and Liquid
  - Season-Long Grub Control
  - Vegetable & Garden Insect Spray

- Indoor products
  - Dual Action Snail and Slug Killer Bait
  - Natria Home Pest Control
  - Home Pest Plus Germ Killer Indoor & Outdoor Insect Killer
  - 2-in-1 Insect Control Plus Fertilizer Plant Spikes
  - Complete Brand Insect Dust For Gardens
  - Home Pest Control Indoor & Outdoor Insect Killer

- Garden products
  - Natria Insecticidal Soap
  - Natria Insect, Disease & Mite control
  - Natria Multi-Insect Control
  - Natria Snail & Slug Killer Bait
  - All-In-One Rose & Flower Care
  - 12 Month Tree & Shrub Protect & Feed
  - 24 Hour Grub Killer Plus
  - 2-In-1 Systemic Rose & Flower Care
  - 3-In-1 Insect, Disease & Mite Control
  - Carpenter Ant & Termite Killer Plus
  - 12 Month Tree & Shrub Insect Control Landscape Formula
  - 2-In-1 Insect Control Plus Fertilizer Plant Spikes
  - Complete Brand Insect Dust For Gardens
  - Complete Brand Insect Killer For Gardens Ready-To-Use
  - Dual Action Rose & Flower Insect Killer
  - Dual Action Snail & Slug Killer Bait
  - Fire Ant Killer Dust
  - Powerforce Multi-Insect Killer - Granules and Liquid
  - Vegetable & Garden Insect Spray

- Vegetables and fruits products
  - Fruit, Citrus & Vegetable Insect Control
  - Natria Insecticidal Soap
  - Natria Insect, Disease & Mite Control
  - Natria Multi-Insect Control
  - Natria Snail & Slug Killer Bait
  - Complete Brand Insect Dust For Gardens
  - Dual Action Snail & Slug Killer Bait
  - Powerforce Multi-Insect Killer – Liquid
  - Vegetable & Garden Insect Spray

- Termites products
  - Termite Killer Granules
  - Carpenter Ant & Termite Killer Plus

Bayer's sale of consumer pesticides in the pet segment is conducted through its Animal Health division, which is part of the Health Care business unit. In addition to several anti-infectives, anti-arthritics, and endoparasiticides, the company offers two major insecticide products: Advantage and K9 Advantix.

Advantage is a topical insecticide containing imidacloprid that kills adult fleas on dogs and cats. It kills from 90% to 100% of adult fleas on pets within 12 hours of application and kills reinfesting fleas within two hours of contact. Advantage continues to provide effective control for 30 days. Dispensed only through licensed veterinarians, Advantage is available in separate packages for cats, dogs, and large dogs. In early 2006, Bayer introduced prescription-only Advantage Multi for Cats and Advantage Multi for Dogs. The products combine the flea control of Advantage with a preventative for heartworm disease and treatment and control of intestinal nematodes (hookworms and roundworms) in one monthly topical solution containing imidacloprid and moxidectin.

Launched in North America in 2003, K9 Advantix is a once-a-month topical product containing imidacloprid and permethrin for use against mosquitoes, ticks, and fleas. It effectively kills mosquitoes and ticks before they bite and stops fleas from biting, killing them within one hour. K9 Advantix is licensed for use on dogs and puppies and available only through veterinarians.

U.S. sales of consumer pesticide and fertilizer products in the Bayer Advanced, Advantage, and K9 Advantix lines are estimated at $262 million in 2011. Pet insecticides account for the majority of these sales.

Table 9-9: Bayer's U.S. Sales of Consumer Pesticides and Fertilizers, 2011		
Product category	**$ Thousand**	**% Of total**
INSECTICIDES		
Pet	222,993	77.3
Outdoor	38,079	13.2
Household	10,958	3.8
Total	272,030	94.3
HERBICIDES	14,107	4.9
FUNGICIDES	2,367	0.8
TOTAL	**288,504**	**100.0**

MARKETING POLICIES

The Bayer Advanced product line for home and garden use is marketed directly to mass merchandisers and home improvement centers such as Lowes. Sales to independent retailers such as nurseries and hardware stores are made through distributor sales representatives. Bayer's Advantage and K9 Advantix for insect infestations on pets are marketed through distributors by company sales representatives exclusively to veterinarians. In total, more than a dozen Bayer sales representatives market the three brands. Bayer plans to expand its sales channel for animal health products and has begun selling Advantage Topical Solution and K9 Advantix directly to pet specialty retailer and pet specialty Internet websites in March 2010.

ADVERTISING

In 2009, Bayer initiated a new promotional campaign "Help Your Pet Get to the Vet" for Bayer Advanced including television and radio ads. In 2010, Bayer introduced a new pet owner rebate program "March Back In" to drive return visits to veterinary clinics. Bayer's TME for 2010 was $6.1 million in 2010, the most of which was spent on its Advanced product line. The Advantage Multi: Dog Rx product was advertised solely in newspapers, with total expenditures of just over $1.0 million. Bayer Advanced Season Long Weed Killer has total expenditures of $1.2 million spread between magazine and various television outlets. In 2011, the TME is $5.6 million, a slight decrease from the previous year. This is due to Bayer changing some of the products being advertised; no advertising was done for Advantage Multi: Dog Rx, which was its biggest expense during the previous year. The majority of expenditures are spent on the Advanced and Natria product lines. Spot TV, network TV, and cable TV remained as their top forms of advertising.

Table 9-10: Traceable Media Expenditures by Bayer Brands for Consumer Products, 2010									
	$ Thousand								
Brand/product	**Maga-zines**	**News-papers**	**Network TV**	**Spot TV**	**Syndicated TV**	**Cable TV**	**Radio**	**Internet**	**Total**
ADVANTAGE									
Advantage Multi: Dog Rx	-	1,025.9	-	-	-	-	-	-	1,025.9
Flea Treatment	-	-	-	26.3	-	-	-	127.7	154.0
Total	-	1,025.9	-	26.3	-	-	-	127.7	1,179.9
BAYER ADVANCED									
Fertilizer & Treatments	223.0	-	-	-	-	-	-	-	223.0
Tree & Shrub Insect Control	-	-	19.9	222.4	-	61.2	-	-	303.5
Fruit Citrus & Vegetable Insect Control& Tree & Shrub Protect & Feed:Combo	-	-	267.1	229.4	-	286.4	-	-	782.9
Season Long: Weed Killer	178.5	-	438.8	308.6	-	309.1	-	-	1,235.0
All in One: Rose & Flower Care	-	-	200.8	372.5	-	301.6	-	-	874.9
Complete: Insect Killer	-	-	191.8	165.8	-	221.0	-	-	578.6
Total	401.5	-	1,118.4	1,298.7	-	1,179.3	-	-	3,997.9
CUTTER									
Insect Repellent	-	-	-	-	-	-	-	1.7	1.7
NATRIA									
Lawn & Garden Products	-	-	425.0	199.4	-	284.1	-	7.0	915.5
TOTAL	**401.5**	**1,025.9**	**1,118.4**	**1,325.0**	**-**	**1,179.3**	**-**	**127.7**	**5,177.8**

Table 9-11: Traceable Media Expenditures by Bayer Brands for Consumer Products, 2011									
	$ Thousand								
Brand/product	**Maga-zines**	**News-papers**	**Network TV**	**Spot TV**	**Syndicated TV**	**Cable TV**	**Radio**	**Internet**	**Total**
ADVANTAGE									
Advantage Flea Treatment	-	-	-	-	-	-	-	18.9	18.9
Advantage II: Flea Treatment	-	-	-	-	-	-	-	480.5	480.5
Total	-	-	-	-	-	-	-	499.4	499.4
BAYER ADVANCED									
Vignette	-	-	-	-	-	4.5	-	-	4.5
Fruit Citrus & Vegetable Insect Control& Tree & Shrub Protect & Feed:Combo	-	-	193.5	242.5	-	245.9	-	-	681.9
Season Long: Weed Killer	-	-	396.7	717.1	-	484.2	-	-	1,598.0
All in One: Rose & Flower Care	-	-	217.3	291.6	-	254.6	-	14.9	778.4
Total	-	-	807.5	1,251.2	-	989.2	-	14.9	3,062.8
NATRIA									
Lawn & Garden Products	-	-	457.0	632.2	-	517.5	-	-	1,606.7
RID									
Bed- Bug Killer	-	-	-	-	-	-	-	70.1	70.1
Lice Treatment Kit	-	-	-	-	-	-	-	71.6	71.6
Lice Treatment Products	-	-	-	-	-	-	-	50.8	50.8
Total	-	-	-	-	-	-	-	192.5	192.5
TOTAL	**-**	**-**	**1,264.5**	**1,883.4**	**-**	**1,506.7**	**-**	**899.3**	**5,553.9**

FACILITIES

The Bayer Group is headquartered in Leverkusen, Germany, while Bayer Corporation's U.S. headquarters is based in Pittsburgh, PA. Advantage and K9 Advantix are marketed in the United States by Bayer Animal Health, which is located in Shawnee, KS. That facility includes a recently completed $60 million pharmaceutical production plant, which is one of the most technologically advanced veterinary medicine production facilities in the country. Following the acquisition of Schering AG in 2007, Bayer has more than 100,000 employees around the world.

OUTLOOK

Bayer's lawn and garden products and insecticides for pets have encountered increased sales during 2011 as a result of new product launches and improved marketing and sales processes. However, consumer spending for pet care products has stayed flat in fiscal 2011. However, with continued expansion of pet superstores and online pet product sales, coupled with ongoing demand for animals as an increasingly mobile and less family-oriented American society, pet product sales are likely to increase in the next few years. Such items make up approximately 75% of the Bayer consumer products profiled in this report. Furthermore, the company has been introducing new products in the last two years to boost sales. In 2007, they introduced two new products, Advantage Multi for Cats and Advantage Multi for Dogs, which conveniently combine flea control with a preventative for heartworm disease and treatment and control of intestinal nematodes. Through 2016, Bayer's overall U.S. consumer pesticide sales are expected to rise by an average of 4% per year to reach $351.0 million.

Table 9-12: Bayer's Outlook for Consumer Pesticides and Fertilizers, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	288.5	-
2016	351.0	4.0

BENGAL PRODUCTS INC.

OVERVIEW

Bengal Products Inc., established in 1985, is a marketer and supplier of consumer insecticides. The company is based out of Baton Rouge, LA, USA. Over the years, the company's high quality products and reputation for effectiveness have earned it a loyal customer base.

SALES AND PROFITS

As a privately held, family owned-and-operated company, Bengal Products does not release financial information. Its sales are estimated at approximately $10.5 million in 2011.

CONSUMER PESTICIDES

Bengal Products markets household pesticides for consumer use under the Bengal label. The company's product line consists of a wide range of principal insect-control products that are divided into five product groups: roaches, indoor bugs, fleas and ticks, outdoor bugs, and fire ants.

Roach products include Roach Spray and Gold Roach Spray containing Nylar insect growth regulator, Non-Flammable Dry Foggers and Concentrated Roach and Flea Fogger. Indoor Sprays include Fly Insect Killer for mosquitoes, flies, gnats and moths; water-based Ant and Spider Killer, water-based Kitchen and Bathroom Bug Killer, Insecticide Concentrate, Non Flammable Dry Foggers, and Concentrated Roach and Flea Fogger.

Bengal's Flea & Tick pet products include Flea & Tick Shampoo, and Flea & Tick Spray containing Nylar insect growth regulator. Flea & Tick home products include Flea & Tick Fogger for killing fleas, ticks, ants, spiders, lice, and other insects, and Full Season Flea Killer Plus spray for bedding, upholstery and carpet. Flea & Tick yard products include Lawn Flea & Tick Killer for lawns and gardens, Flea & Tick Concentrate for dog house and fenced dog runs, and Flea & Tick Barrier Granules for home barrier treatment.

The company's Outdoor Bugs product line has two products for wasps and hornets: a Non-Conductive Wasp & Hornet Killer, which is a solvent-based shotgun spray; and Foaming Wasp & Hornet, which is a water-based insect kill spray. This product line includes Yard & Patio Outdoor Fogger which treat screens, outdoor furniture, bushes and other surfaces where insects may land; Flying Insect Killer for mosquitoes, flies, gnats, and moths; Mosquito Repellant which repels mosquitoes, biting flies, gnats, chiggers, ticks, and fleas; and Ant & Spider Killer. The product range also has two concentrate products: Insecticide Concentrate for killing pests on indoor and outdoor surfaces; and Termite Killing Concentrate for killing termites, carpenter ants, and carpenter bees. The product line also includes Home Barrier Granules for barrier treatment against ants, spiders, fleas, ticks, and other insects. The company plans to introduce a new product in the Outdoor Bugs product line in 2012.

Bengal Products also offers Fire Ants UltraDust for killing fire ants on contact. This product does not clump or absorb moisture and kills insects up to 8 months.

Sales of consumer insecticides are estimated at $10.5 million in 2011.

Table 9-13: Bengal Products' U.S. Sales of Pesticides and Related Products to Consumer Markets by Product Category, 2011

Product category	$ Thousand	% Of total
Roach Products and Indoor Bugs	3,161	30
Flea and Tick	3,161	30
Outdoor Bugs	2,107	20
Fire Ant	2,107	20
Total	**10,537**	**100**

MARKETING POLICIES

Bengal supplies its products mostly through distributors and wholesalers to the national chains and to leading home centers, pharmacies, supermarkets, hardware stores, lawn and garden centers, and feed stores. Bengal concentrates its marketing efforts on the southern part of the United States. Approximately 70% of the company's sales are in the Mid Atlantic, Southeast and South to Central regions, taken together, where the weather conditions favor pest population. The remaining 30% of company's sales are scattered in other parts of the United States.

Bengal's products are also available for direct order through its website, www.bengal.com. The company has also started marketing via social media, such as Facebook. Approximately 10% of the company's budget is allotted for social media marketing.

ADVERTISING

Bengal Products continues to promote its products in cooperation with distributors and retailers, offering volume discounts.

Consumer advertising includes the tagline, "Bengal Products Really Work!" along with a 60-day money-back guarantee. In addition to that, they advertise their top product line, Roach Spray, stating that it provides, "No odor. No staining. No sticky residue. No more roaches."

Bengal Products does its advertising through spot TV ads with an estimated $179,900 in expenditures in 2010, including advertisements with UTSA and $123,100 in 2011.

Table 9-14: Bengal Products' Advertising Expenditures for Spot TV Ads, 2010 to 2011

Brand	$ Thousand
2010	
Combo Vignette (with UTSA)	5.8
Roach spray	174.1
Total	179.9
2011	
Insecticides	46.0
Roach spray	77.1
Total	123.1

FACILITIES

Bengal Products is located in Baton Rouge, LA, and has around 50 employees engaged in marketing, distribution, and administration. Products are produced for the company by contract packers.

OUTLOOK

Until 1993, sales of Bengal Products had been growing rapidly in the South based upon word of mouth, with relatively low expenditures for advertising and promotion. The company developed into a strong regional supplier of household insecticides. However, this continued focus on the Southern states may constrain greater growth. Unfavorable weather conditions and economic downturn has affected the sales of Bengal Products adversely in the last two years. Sales in the flea and tick category have been slightly better than the others. Throughout the forecast period, sales of Bengal Products are expected to grow at an average annual rate of 3.7%.

Table 9-15: Bengal Products' Outlook for Consumer Pesticides, 2011 to 2016		
Year	**$ Million**	**Average annual growth, %**
2011	10.5	-
2016	12.6	3.7

BONIDE PRODUCTS

OVERVIEW

Bonide Products is located in Oriskay, NY, and was established in 1926 by James H. Wurz. The company is privately owned by the third generation of the Wurz family. Bonide Products manufactures and markets a wide variety of pest control and lawn and garden products for consumer and professional markets. The company's products include insecticides, herbicides, baits, repellents, fungicides, rodenticides, and related products. The consumer product line, marketed under the Bonide label, consists of around 235 products, most of which are available in several packaging options. Bonide Products also manufactures a wide range of products under private labels for other suppliers.

SALES AND PROFITS

Bonide Products continues to experience strong growth as a result of an ongoing initiative to expand beyond its traditional regional focus of the U.S. Northeast. However, since 2008, there has been a decrease or flattening in sales due to the economic slowdown. Sales in 2011 are estimated at $32,200, which is about flat with 2010. Sales of consumer fertilizers and pesticides are estimated at $22.5 million.

Consumer products account for approximately 70% of Bonide's sales, while the remaining 30% is made up of contract manufacturing for professional pest control companies. Consumer product sales are divided among insecticides, herbicides, fungicides, rodenticides, and other products, such as repellents and fertilizers. Insecticides remain the largest product category with 50% of the consumer business.

CONSUMER PESTICIDES AND FERTILIZERS

Bonide offers a broad line of consumer products that are generally well-regarded for their high quality and ability to address virtually any consumer pest problem. In December 2005, however, Bonide was fined more than $11,000 by the Alaska Department of Environmental Conservation (DEC) for selling 23 products that had not been registered. The DEC discovered the unregistered chemicals during a marketplace inspection in April 2005. While the products had been registered for sale in previous years, Alaskan state law requires registration renewal each year. The fine was reportedly the largest imposed for a pesticide violation in Alaska.

Table 9-16: Bonide's U.S. Sales of Pesticides and Related Products to Consumer Markets by Category, 2011		
Product category	**$ Thousand**	**% Of total**
INSECTICIDES		
Outdoor	10,125	45
Household	1,125	5
Total	11,250	50
HERBICIDES		
Lawn	2,250	10
Specialty	2,250	10
Total	4,500	20
FUNGICIDES	2,250	10
RODENTICIDES	2,250	10
REPELLENTS	1,125	5
FERTILIZERS	1,125	5
TOTAL	**22,500**	**100**

Bonide has a wide range of insecticides, herbicides, fungicides, rodenticides, repellants, and fertilizers distributed in the categories: Household Pest Control, Garden Naturals, Insect Control, Weed Control, Disease Control, Repellants and Specialty, Insect and Disease Combination Products.

Each year, Bonide reviews its product offerings, discontinuing lagging items and introducing new products that meet a consumer need.

MARKETING POLICIES

Bonide focuses its marketing efforts on independent lawn and garden retailers, but also sells to regional chains and some national chains on a regional basis. A vice president of sales and marketing oversees all sales and marketing activities, supported by four regional sales managers located in Tulsa, OK, Richmond, VA, Omaha, NE, and Tacoma, WA. Bonide expanded its sales team in key markets by four new members in October 2010. Approximately 30 manufacturers' representatives augment the company's sales force.

Table 9-17: Bonide's Pesticide Brands and Active ingredients, 2011

Brand	Active ingredient
Bat Magic	Peppermint oil, spearmint oil
Dragoon Dust with Copper	Carbaryl, basic copper sulfate
Excel Systemic Fungicide	Natural Ingredients
Fung-onil Multipurpose Fungicide	Triadimefon
Garden Dust	Pyrethins
Hot Pepper Wax Animal Repellent	Capsaicin and related capsaicinoids
Mancobzeb Concentrate Flowable Fungicide	Mancobzeb
Moletox Baited Gel	Warfarin
Mouse Magic	Peppermint oil, spearmint oil
Repels All Granules	Natural Ingredients
Revenge Mole & Gopher Gasser	Sulfur, potassium nitrate
Rose RX 3 in 1 Concentrate	Rose RX 3 in 1 Concentrate
Shot-Gun Repels -All Animal Repellent Granules	Natural Ingredients
Shot-Gun Repels-All Animal Repellent Spray	Natural Ingredients
Snake Stopper	Cinnamon oil
Sulfur Plant Fungicide	Sulfur

A new initiative, called the Bonified Dealer program, was launched in January 2006 to further strengthen distribution through selected dealers. Bonide offers various support tools including co-op ad slicks, point-of-purchase displays such as shelf talkers, and sales flyers for its most popular products. Although most of these dealers are located in the East or Midwest, Bonide's roster of participants continues to grow and stood at more than 200 by early 2008.

ADVERTISING

Bonide significantly increased its TME from $131,000 in 2009 to $354,000 in 2010. The company 2010 TME was used on newspaper advertising only, but increased the number of products being advertised. In 2011, the TME was $394,200, which was mostly for newspaper advertising, but Spot TV ads were also done for a few products. The company has also previously stated that it promotes its products through point of purchase displays, trade shows, and radio advertising on lawn and garden talk programs.

Table 9-18: Bonide's Advertising Expenditures, 2010	
Brand	**$ Thousand**
2010	
BONIDE	
Annual Tree & Shrub Insect Control	24.6
Pest Control	10.5
Weed & Grass Killer	0.1
Molemax: Pest Control	24.6
Rose Rx: Pest Control	14.1
Weed Beater Ultra: Weed Control	75.5
Eight: Insecticides	24.6
Repels All: Animal Repellent	55.9
Rose Rx Systemic Drench: Pest Control	60.4
CAPTAIN JACKS DEAD BUG BREW	
Insecticides	49.6
NO ESCAPE MOUSE MAGIC	
Rodent Controllers	14.1
TOTAL	**354.0**

Table 9-19: Bonide's Advertising Expenditures, 2011			
	$ Thousand		
Brand	**Newspapers**	**Spot TV**	**Total**
BONIDE			
Pest Control	14.9	0.2	15.1
Molemax:Pest Control	24.6	0.2	24.8
Rose Rx: Pest Control	-	0.1	0.1
Weed Beater Ultra: Weed Control	77.4	-	77.4
All Seasons Oil Spray: Weed & Grass Killer	-	0.1	0.1
Eight: Insecticides	47.5	-	47.5
Mouse Magic: Mouse Repellent	13.7	-	13.7
Repels-All: Animal Repellent	138.5	0.1	138.6
Rose Rx Systematic Drench: Pest Control	24.6	-	24.6
Weed Beater: Weed & Grass Killer	-	0.1	0.1
CAPTAIN JACKS BED BUG BREW			
Insecticides	24.6	-	24.6
NO ESCAPE MOUSE MAGIC			
Rodent controllers	27.5	-	27.5
TOTAL	**393.3**	**0.8**	**394.1**

FACILITIES

Bonide operates out of an expanded 275,000 sq ft manufacturing and distribution facility completed in 2003. The facility also houses the corporate offices. The production area is state-of-the-art and includes liquid, dry, and granular production lines. As of December 2011, Bonide employed 200 people.

OUTLOOK

Over the past several years, Bonide has experienced rather flat sales. The company is looking to expand beyond its historic focus in the U.S. Northeast and obtains product registrations in a rising number of states in other regions. The Bonified Dealer program and a continuing flow of new product launches are also contributing to growth.

Before the recession, Bonide was going strong with an average growth of 9.5% for the consumer products. However, with the economic slowdown, sales have somewhat decreased in the last two years. Going forward, Bonide is expected to maintain an overall sales growth of 5.3% per year, on average, reaching $29.1 million by 2016.

Table 9-20: Forecast Growth of Bonide's U.S. Sales Of Pesticides and Related Products to Consumer Markets, 2011 to 2016

	$ Thousand		
Pesticide category	**2011**	**2016**	**Average annual growth, %**
INSECTICIDES			
Outdoor	10,125	10,429	5.3
Household	1,125	1,159	5.3
Total	12,375	12,746	5.3
HERBICIDES			
Lawn	2,250	2,340	5.3
Specialty	2,250	2,340	5.3
Total	4,500	4,680	5.3
FUNGICIDES	2,250	2,340	5.3
RODENTICIDES	2,250	2,340	5.3
REPELLENTS	1,125	1,148	5.3
FERTILIZERS	1,125	1,159	5.3
TOTAL	**22,500**	**29,093**	**5.3**

CENTRAL GARDEN & PET

OVERVIEW

Central Garden & Pet is a manufacturer, marketer, and innovator of lawn and garden products and pet supplies for consumer and professional use. The company's corporate office is located in Walnut Creek, CA. Central Garden & Pet was founded in 1931 and privately held until 1993 when it went public. William E. Brown, the previous owner and current chairperson of the board, still holds an interest sufficient for effective control in the company.

Pet products include:

- Products for dogs and cats, including dry foods, canned foods, oven-baked treats, leashes, collars, toys, pet carriers, grooming and training supplies
- Animal wellness products for flea and tick control, such as shampoos, dips, soaps, ear care sprays and mists, spray powders and foggers
- Products for wild and pet birds, and small animals, including food, cages and habitats, toys, chews, and related accessories
- Animal and household insect control products
- Products for aquatic animals and reptiles, including aquariums, furniture and lighting fixtures, pumps, filters, water conditioners, food and supplements, and information and knowledge resources
- Hoof care products for horses and livestock

These products are sold under a number of brand names including Avoderm, Breeder's Choice, Four Paws, Interpet, Pet Select, Pinnacle, Nylabone, TFH, Farnam, Equi Aid Products Inc., Horseshoer's Secret, Platform, Vita Flex, Kaytee, Superpet, Pennington, Cedar Works, Aqueon, Blgdon, Coralife, Kent, Oceanic, Tropical Fish, Zilla, Adams, Bio Spot, Pre Strike, Wellmark, and Zodiac.

Lawn and garden supplies include:

- Proprietary and non-proprietary grass seed
- Wild bird feed, bird feeders, bird houses, and other birding accessories
- Garden weed, moss, insect and pest control products, and soil supplements and stimulants
- Decorative indoor and outdoor pottery products

These products are sold under a number of brand names, including Pennington, Penkoted, Max-Q, ProSelect, Tournament Quality, Master Turf, Bird Kote, Knockout, Strike, Lilly Miller, Maxide, Alaska Fish Fertilizer, Image, Sevin, Amdro, Four Seasons, and GKI/Bethlehem Lighting.

Central Garden & Pet has made a series of important acquisitions which have significantly increased the size of the company. Table 9-21 gives details of the acquisitions made by the company since 1988 to the present, as well as various distribution agreements made to distribute specific products.

Table 9-21: Central Garden & Pet Acquisitions, 1997 to 2011

Company acquired	Description of acquisition	Date	Business segment
Weyerhaeuser Garden Supply	California and Arizona operations	1988	Lawn and garden
Weyerhaeuser Garden Supply	Remaining operations	1990	Lawn and garden
Matthews Redwood and Nursery Supply	Southern California lawn and garden distributor	1990	Lawn and garden
CGS Distributing	Colorado distributor	1992	Lawn and garden
ESCO Distributors	Lawn and garden distribution operations	1994	Lawn and garden
The Solaris Group, Monsanto	Agreement to become master distributor of Ortho, Roundup and Greensweep products	1995	Lawn and garden
Valley Pet Supply Inc.	Pet supplier in California, Washington and Oregon	1995	Pet
Kenlin Pet Supply	Pet supply products	1996	Pet
Longhorn Pet Supply	Pet supply products	1996	Pet
Commerce	Equity interest in Maryland lawn and garden distributor	1997	Lawn and garden
Ezell Nursery Supply Inc.	Distributor of lawn, garden, barbecue and patio products	1997	Lawn and garden
Four Paws Products Inc.	Pet products	1997	Pet
Sandoz Agro flea and tick business	Flea and tick protection business in the United States and Canada, re-named Wellmark International	1997	Pet
Kaytee Products	Manufacturer of bird and small animal food	1997	Pet
THF Publications	Manufacturer of dog chews and producer of pet books	1997	Pet
Pennington Seed	Largest producer and marketer of grass seed in the United States	1998	Lawn and garden
Norcal Pottery Products Inc.	Designer, importer and distributor of pottery	1999	Lawn and garden
Grant Laboratories	Manufacturer of consumer ant control products	1999	Lawn and garden
The Solaris Group, Monsanto	Agreement to become distributor of Ortho, Roundup and Greensweep products terminated	1999	Lawn and garden

(Continued)

Table 9-21: Central Garden & Pet Acquisitions, 1997 to 2011			
Company acquired	**Description of acquisition**	**Date**	**Business segment**
Cedar Works	Equity stake in Cedar Works, producer of wooden bird feeders	2000	Lawn and garden
Unicorn Laboratories	Florida manufacturer of pesticides for animal health and lawn and garden markets	2000	Lawn and garden
Whites Pottery	Texas pottery company	2000	Lawn and garden
American Cyanamid	Consumer products Amdro and Image	2000	Lawn and garden
All-Glass Aquarium Co.	Manufacturer and marketer of aquariums and related products	2000	Pet
Garden Grow Co.	Lilly Miller and Cooke lines of pesticides and fertilizers	2000	Lawn and garden
Alaska Fish Fertilizer Co.	Fertilizer company	2000	Lawn and garden
Kent Marine Inc.	Marketer of saltwater aquarium supplements and conditioners	2004	Pet
New England Pottery Inc.	Marketer of decorative pottery and seasonal lighting	2004	Lawn and garden
Interpet Ltd.	British chemical and animal health company	2004	Pet
KRB Seed Co.	North Carolina provider of high quality grass seed	2004	Lawn and garden
Energy Savers Unlimited Inc.	Provider of specialty lighting for aquatic, reptile, and avian hobbyists	2004	Pet
Gulfstream Home and Garden	Exclusive marketer of consumer Sevin and Rootone	2005	Lawn and garden
Pets International	Supplier of small animal and specialty pet supplies	2005	Pet
Shirlo Inc.	Acquired exclusive marketing rights to etofenprox, an insect adulticide	2005	Pet/Lawn and garden
Farnam Companies	Manufacturer and marketer of animal health care products, including Biospot, Scratchex, Adams, and Bitefree brands	2006	Pet/Lawn and garden
Breeder's Choice Pet Foods Inc.	Marketer and manufacturer of all natural dog and cat food sold under the brands AvoDerm, Pinnacle, Active Care and Advanced Pet Diets	2006	Pet
Tech Pac, L.L.C.	Increased equity interest in supplier of branded insect control products in the lawn and garden market	2006	Lawn and garden
Ironite Products	Acquired the rights to the Ironite brand of soil supplements and associated intellectual property	2006	Lawn and garden
B2E Corporation, B2E Biotech LLC, and DLF Trifolium Oregon (dba "ASP Research")	With the assistance of Strauss Capital partners, acquired B2E Corporation (and related entities), a company specializing in the formulation and development of environmentally neutral chemicals to protect people and animals. Recently launched innovative mosquito control line	2007	Pet/lawn and garden

As a result of these acquisition efforts, Central Garden & Pet is currently one of the largest companies in both U.S. lawn and garden products and pet supplies, with sales of more than $1.6 billion. In addition, this strategy has allowed the company to evolve from strictly a distribution company in 1997 to a manufacturer and marketer of branded products today. In 2011, the company's branded product sales are approximately $1.4 billion, or about 84% of total sales.

In early 2012, Howard Johnson's Enterprises was acquired by Central Garden & Pet, a Missouri-based manufacturer, marketer, and innovator of lawn and garden products for consumer and professional use.

SALES AND PROFITS

For the fiscal year ending September 2011, Central Garden & Pet Company reports sales of around $1.63 billion, a growth of 7% from the sales of fiscal year 2010. Net income of the company in 2011 is reported at $28.3 million.

Table 9-22: Central Garden & Pet's Historical Sales, 2000 to 2011

	$ Million		
Year-a	**Sales**	**Net profits**	**% Margin on sales**
2000	1,350.9	(11.8)	-
2001	1,123.0	(9.3)	-
2002	1,077.8	(83.7)	-
2003	1,145.0	34.6	3.0
2004	1,266.4	104.3	8.2
2005	1,380.6	130.8	9.5
2006	1,621.5	162.0	10.0
2007	1,671.1	140.0	8.4
2008	1,705.3	(267.3)	-
2009	1,614.3	65.9	4.0
2010	1,523.6	45.8	3.0
2011	1,628.6	28.3	1.7

a- Fiscal year ending September 30.

Beginning in the 2001 fiscal year, Central Garden & Pet's operations were grouped into two business segments: Garden Products (encompassing the lawn and garden product lines) and Pet Products (encompassing pet products and products for the professional pest control operator and vector control applicator).

CONSUMER PESTICIDES AND FERTILIZERS

Pet Products

Central Garden & Pet is both a leading manufacturer of proprietary branded pet products and a distributor of a comprehensive selection of other manufacturers' brands.

Table 9-23: Central Garden & Pet's Sales and Income, 2001 to 2011

	$ Million		
Year-a	**Estimated net sales-b**	**Estimated income**	**% Of total company sales**
2001	483	35	43
2002	471	43	44
2003	502	53	44
2004	569	61	45
2005	639	84	46
2006	819	105	51
2007	893	94	53
2008	897	106	52
2009	833	102	52
2010	840	98	55
2011	851	78	52

a- Fiscal year ending September 30.
b- Includes distribution.

Proprietary consumer brands of pet products are divided into the following categories:

- Dog & Cat: Includes Nylabone, Four Paws, TFH, Pet Select, Interpet, Pinnacle, Avoderm, Comfort Zone, and Breeder's Choice
- Aquatics and Reptiles: Includes Aqueon, Oceanic, Interpet, Zilla, Kent Marine, Coralife, Tropical Fish, and Blagdon
- Wild and Pet Bird: Includes Kaytee, Cedarworks, and Pennington Seed
- Animal Wellness: Includes Zodiac, Altosid, Pre-Strike, Farnam (horses),and Biospot (household pets)
- Small Animal: Includes Kaytee and SuperPet
- Equine: Includes Farnam, EquiAid, Horseshoer's Secret, and VitaFlex

After the acquisition of Farnam in 2006, Central Garden & Pet began a process of folding both of their pet and animal health companies, Wellmark International and Farnam, into one organization. Wellmark's and Farnam's business lines are described below:

Wellmark manufactures and markets pet, premise-control, fly-control, professional pest-control, and vector-control insecticides. Wellmark markets insecticides to professional pest-control operators under Zoecon Professional Products; the Starbar label to farm and feed stores and pest-control operators; the Zodiac brand for consumer pets, mass-market, and grocery stores; and the Vet-Kem product line sold exclusively through veterinarians. The Zodiac product line consists of a full range of on-animal and premise insecticides. The key product groups contained in the line include: on-animal flea and tick shampoos, powders, sponge-ons, sprays, and wipes; on-animal flea and tick topicals and collars; and premise foggers, carpet powders, and indoor and yard insect sprays. Wellmark has nonexclusive rights to methoprene in the United States and Canada, and it is the key active ingredient in the Zodiac line of insect growth regulators. In December 2005, the company announced that it had acquired the exclusive marketing rights to etofenprox, an insect adulticide approved for on-animal use, which it plans to combine with its proprietary larvacide methoprene to produce innovative new products for flea and tick control. Sales of Zodiac-branded pet insecticides are estimated at $30 million in 2011. In addition to pet insecticides, the company markets a line of professional pest-control insecticides and sells its flea-control IGR (methoprene) and cockroach-control IGR (hydroprene) to several leading consumer insecticide companies, including S.C. Johnson, Hartz, and Enforcer. Sales of methoprene to Merial are used for its Frontline Plus product line, which is sold in veterinary markets.

In the vector control area, Wellmark International markets Altosid, a methoprene-based larvicide for mosquito control in the United States. Pro Links is the methoprene product offered by Wellmark for international vector control markets. In 2002, the company also introduced a methoprene-based Pre-Strike mosquito product for the consumer. Pre-Strike is for use as a larvicide in bird baths, water gardens, and other water-holding receptacles. Several formulations are currently available: Pre-Strike MosquitoTorpedo 3-Pack, packaged in tablet form, and Pre-Strike 3-Pack, packaged in 20 gram pouches, Pre-Strike Mosquito Repellent (containing DEET), Pre-Strike Mosquito Repellent for Dogs, Pre-Strike Yard & Garden Spray, and Pre-Strike Outdoor Fogger. Sales for the Pre-Strike product line are estimated $6 million.

Wellmark also does private-label manufacturing of flea topicals for Enforcer. Sales of methoprene and hydroprene for private-label uses are estimated at $7 million in 2011.

Farnam manufactures and markets health care products primarily for horses, household pets, and livestock sold through both retail and veterinary channels. The pet products business of Farnam markets a wide range of consumer pet care products and other miscellaneous products, and the equine business sells a range of consumer fly products. Farnam's pet and pet premise insecticides are marketed under the brands BioSpot, Scratchex, Adams, Adams Plus, and Flys Off. Consumer fly products are sold under the Bite Free brand. Rodenticides are sold under the Just One Bite brand. Farnam's consumer pesticides are estimated at approximately $67 million in 2011.

Table 9-24: Farnam's U.S. Sales of Pesticides and Related Products to Consumer Markets by Product Category, 2011

Product category	$ Thousand	% Of total
PESTICIDES		
Pet insecticides	46,000	69
Veterinary insecticides	3,250	5
Household insecticides-a	8,450	13
Total	57,700	87
RODENTICIDES	6,000	9
REPELLENTS	3,250	5
TOTAL	**66,950**	**100**

a- Includes sales of Mosquito Halt.

The research, manufacturing, marketing, and product development expertise of the two companies were combined into a strategic business unit known as Central Life Sciences. Today, Central Life Sciences encompasses 13 groups: Horse Products, Pet Products, Mosquito Control for Professionals, Fly Control for Production Livestock, Pest Management for Professionals, Pest Control in Rural Settings, Stored Commodity Insect Control, Greenhouse Nursery Insect Control, Fire Ant Control, Veterinary Products, Varroa Mite Control, Sciarid Fly Control, Midge/Filter Fly Control. The mission of the business unit is a commitment to improving the wellness of people, animals, plants and the environment.

Garden Products

The Garden Products segment manufactures a broad array of proprietary branded lawn and garden products, including Pennington, The Rebels, Amdro, Grant's, Lilly Miller, Ironite, Sevin, Over'n Out, Norcal Pottery, New England Pottery, GKI/Bethlehem Lighting, and Matthews Four Seasons. It also performs logistics and sales activities for a variety of other manufacturers of lawn and garden products.

Pennington Seed Inc. of Madison, GA, Grant Laboratories Inc. of San Leandro, CA, Ambrands of Atlanta, GA, Garden Tech of Lexington, KY, and the Lilly Miller subsidiaries manufacture and market Central Garden & Pet's consumer lawn and garden pesticides and fertilizers.

Table 9-25: Central Garden's Sales and Income, 2001 to 2011			
	$ Million		
Year-a	Estimated net sales-b	Estimated income	% Of total company sales
2001	640	7	57
2002	607	37	56
2003	643	39	56
2004	697	43	55
2005	741	47	54
2006	802	57	49
2007	778	46	47
2008	808	31	47
2009	781	69	48
2010	683	53	45
2011	777	50	48

a- Fiscal year ending September 30.
b- Includes distribution.

Pennington Seed Inc. was founded in 1945. The company manufactures and markets a complete line of lawn and garden products, including fertilizers, pesticides, grass seed, vegetable seed, wildflower seed, bird feed, wildlife products, and soil and forestry products. The company was started by the late Brooks Pennington, Sr., and has developed into the largest producer and marketer of grass seed in the United States. Pennington Seed was 100% owned by the Pennington family until Central Garden & Pet acquired the company in February 1998, making it a wholly owned subsidiary.

Pennington markets a complete line of pesticides under the Maxide label to independent lawn and garden retailers. In addition to its own brands, Pennington distributes products from other Central Garden companies, such as Amdro and Image from Ambrands. The Pennington Pride, Procare, and Green Charm brands have been eliminated due to the high cost of maintaining registrations. Pennington produces an additional line of consumer pesticides under the Eliminator brand for Walmart. Walmart owns the brand, and Pennington has an exclusive manufacturing arrangement. In 2009, Pennington introduced a new brand—Signature series fertilizer for the U.S. market—and in early 2010—Knockout insecticides and herbicides. Pennington sells through independent and national chains, as well as through Central Garden's own distribution company, Central Garden Distribution.

Pennington Seed's consumer pesticide and fertilizer sales, including the Eliminator brand produced for Walmart, are estimated at $86 million in 2011.

Table 9-26: Pennington's Sales of Pesticides and Fertilizers, 2011		
Product category	**$ Million**	**% Of total**
Outdoor insecticides	48	56
Fertilizers	22	25
Nonselective and selective herbicides	10	12
Household insecticides	6	7
Total	**86**	**100**

Central Garden Distribution is the current name for the original Central Garden distribution company. The name was changed to Excel Garden Products when the company lost the rights to distribute Scotts line of garden products, but has now changed again. Central Garden Distribution has eleven distribution centers nationally and distributes products internally from Central Garden companies, such as Pennington, as well as other lawn and garden companies' products.

Grant Laboratories Inc. manufactures and markets ant and spider insecticides and dog, cat, and animal insect repellents for consumer use. The ant and spider insecticides are sold under the Grant's Kills Ants label. The animal repellents are sold under the RO-PEL brand. Grant also supplies rodenticides under the Sure Stop brand. Sales of Grant's consumer insecticides in 2011 are estimated at $4.4 million, accounting for nearly 80% of the company's revenue of $5.6 million.

Ambrands manufactures Amdro fire ant bait and Image selective herbicide. Amdro is the leading fire ant bait available in the consumer market. Image is a herbicide for the control of difficult weeds in southern turf, such as nutsedge and dollarweed. Both products are sold primarily in the Southeast. Consumer sales of Amdro and Image are estimated at $20 million for 2011. Ambrands is headquartered in Atlanta, GA.

The Lilly Miller line includes chemicals, fertilizers, and seeds. There are five primary brands: Lilly Miller, Cooke, Worry Free, Alaska, and Morrison's. The Worry Free brand is limited primarily to lawn food, molluskicides, organic animal repellents, and moss control; the Cooke brand is limited to specialty baits; the Alaska brand, purchased in 2000, is a line of sprayable, liquid, and dry fertilizers made from fish; the Morrison's line includes Tru-Green micronutrients, Tree Seal grafting and pruning compounds, and Spoonit water-soluble houseplant fertilizers. The Lilly Miller segment has several sub-brands.

Sales of Lilly Miller's pesticides and fertilizers are estimated at $15.3 million in 2011. It is estimated that fertilizers make up more than half of the total sales of the company with insecticides, herbicides, and other products almost equally sharing the remainder.

Table 9-27: Lilly Miller's Sub-brands of Pesticides and Fertilizers, 2011

Sub-brand	Category
Hose 'N Go	Herbicides, moss control, and rodenticides
Kop-R-Spray	Fungicides
Moss Out	Moss and algae control
Noxall	Soil sterilant
Rapid Green	Herbicides and fertilizers
Ultragreen	Herbicides and fertilizers

Table 9-28: Lilly Miller's U.S. Sales of Pesticides and Related Products to Consumer Markets by Product Category, 2011

Product category	$ Thousand	% Of total
FERTILIZERS		
Lawn	6,000	39.2
Garden	2,400	15.7
Houseplant	200	1.3
Total	8,600	56.2
INSECTICIDES		
Lawn/garden	2,250	14.7
Total	2,250	14.7
HERBICIDES		
Garden	1,150	7.5
Lawn	900	5.9
Nonselective	300	2.0
Total	2,350	15.4
OTHER		
Rodenticides	600	3.9
Lime/amendments	550	3.6
Fungicides	450	2.9
All other	500	3.3
Total	2,100	13.7
TOTAL	**15,300**	**100.0**

MARKETING POLICIES

Central Garden & Pet's lawn and garden products are sold through a number of distribution channels, including home centers, mass merchants, independent nurseries and hardware stores. The company has a distribution sales and logistics network of 26 facilities. In 2011, Walmart represents 28% of the lawn and garden total sales, Home Depot represents 15%, and Lowe's represents approximately 12%.

Pet Products' consumer-branded products are sold nationwide through its own distribution network consisting of seven facilities. Products are also sold to independent distributors and directly to specialty pet stores, mass merchandisers, and independent pet retailers. Branded-product sales are made by approximately 125 sales and marketing personnel. Pet Products employs approximately 100 sales and marketing personnel to support logistics and sales activities for other manufacturers. PetsMart was the largest retail outlet for the Pet business, representing 12% of Pet Products' sales in 2011.

ADVERTISING

Central Garden & Pet's TME decreased from $2.6 million in 2009 to $1.7 million in 2010. The majority of the expenditures were for the Adams Spot On: Flea & Tick Drop product with $1.2 million being spent in 2010, mostly on magazine adverts. In 2011, TME slightly increased to $1.8 million due to an increase in internet advertising. The Adams Flea & Tick products had the most expenditures with $1.1 million mostly advertised in magazines. Amdro Products are only advertised through Spot TV adverts in both years. Pennington advertises mostly on the internet, with its website providing information about weed and insect charts and lawn care programs at www.penningtonseed.com. Lilly Miller advertised through Spot TV adverts also promotes its lawn and garden lines at www.lillymiller.com. Other popular brands, such as Zodiac and Wellmark, had no TME for 2010 or 2011. Zodiac promotes its pet products and informational materials on its website, www.zodiacpet.com. Wellmark International is well represented at professional association meetings.

Table 9-29: Central Garden & Pet's Advertising Expenditures, 2010				
	$ Thousand			
Brand	Spot TV	Magazines	Internet	Total
AMDRO				
Amdro Fire Ant Insecticide	337.7	-	-	337.7
Quick Kill: Fire Ant Insecticide	56.1	-	-	56.1
AMDRO FIRESTRIKE				
Yard Treatment: Ant Insecticide	142.2	-	-	142.2
FARNAM				
Adams Spot On: Flea & Tick Drops	-	1,154.4	48.5	1,202.9
LILLY MILLER				
Moss Out: Fertilizers & Treatments	0.1	-	-	0.1
PENNINGTON				
Lawn Food & Seed	-	-	48.9	48.9
Fast Acting: Lime	10.1	-	-	10.1
TOTAL	**546.2**	**1,154.4**	**97.4**	**1,798.0**

Table 9-30: Central Garden & Pet's Advertising Expenditures 2011				
	$ Thousand			
Brand	Spot TV	Magazines	Internet	Total
AMDRO				
Quick Kill: Fire Ant Insecticide	308.1	-	-	308.1
AMDRO FIRESTRIKE				
Yard Treatment: Ant Insecticide	220.1	-	-	220.1
FARNAM				
Adams: Flea & Tick Products	-	1,148.7	19.2	1,167.9
Biospot: Flea & Tick Treatments	-	-	67.5	67.5
LILLY MILLER				
Fertilizers & Treatments	0.3	-	-	0.3
Moss Out: Fertilizers & Treatments	1.6	-	-	1.6
PENNINGTON				
Lawn Food & Seed	-	-	90.2	90.2
TOTAL	**530.1**	**1,148.7**	**176.9**	**1,855.7**

FACILITIES

Central Garden & Pet manufactures the majority of its branded products in 39 manufacturing facilities located in the U.S. Garden Products currently operates 23 manufacturing facilities, including Pennington's GRO-TEC fertilizer plants in Eatonton, GA, and Longmont, CO, and Grant's manufacturing facility in San Leandro, CA. Pet Products operates 17 manufacturing facilities. Some proprietary branded products are manufactured under contract. Four Paws operates manufacturing facilities in Hauppauge, NY. Wellmark operates a manufacturing and technology center in Dallas, TX. Some proprietary products are also manufactured by contract manufacturers. The company has an exclusive agreement with a third party to manufacture methoprene for flea and tick products.

Central Garden & Pet has approximately 4,300 employees, of which 3,900 are full-time and 400 are temporary or part-time.

OUTLOOK

Although Central Garden & Pet had increased sales in some categories in fiscal 2011, their net earnings decreased due to more expensive input costs and increased competitive pressures. The economic slowdown has resulted in lower consumer purchases for some non-necessary pet items, and down-shifting from higher priced products to value priced items. Competition continues to be stiff, with the existing players like Bayer, Merial, and Hartz Mountain in the Pet products segment and Scotts in the lawn and garden business.

Sales are expected to increase slightly, due largely to the poor economic outlook and continued strength in the competitive environment, excluding the impact of any further acquisitions that are made. Sales of consumer pesticides and fertilizers by Central Garden & Pet are estimated to reach $218.6 million by 2016.

Table 9-31: Central Garden & Pet's Outlook for Pesticides and Fertilizers, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	202.9	-
2016	218.6	1.5

CONTROL SOLUTIONS INC.

OVERVIEW

Control Solutions Inc. (CSI) of Pasadena, TX, is a partner of Makhteshim-Agan Industries (MAI). The company started in 1958 with the acquisition by the Boyd family of a small Pasadena, TX, pest control company, which came to be named Ford's Chemical and Services in 1976. Control Solutions was created in 1985 primarily to distribute Ford's products to the professional and consumer markets. Ford was acquired by Roussel in 1989, and Control Solutions continued as a family-owned business.

CSI has product lines for the Industrial, Lawn and Garden, Animal Health, and Biocides market. The company formulates and markets insecticides, fungicides, herbicides, and rodenticides to professional applicators, wholesale distributors, and retailers, including its own retail stores in the Houston area. The company's products are divided into five categories that focus on specific market segments: Lawn and Garden, Animal Health, Pest Control, Pramitol, and Biocides.

SALES AND PROFITS

In 2007, MAI held a 67.1% equity position in Control Solutions Inc., an increase of 22.1% from the 45% ownership in early 2005. Prior to the equity purchase in 2005, Control Solutions was a privately held company. Sales are estimated at $75 million in 2011.

CONSUMER PESTICIDES AND FERTILIZERS

CSI manufactures and markets a variety of herbicides, insecticides, fungicides, rodenticides, animal health, and lawn and garden products, as well as fertilizers and technical concentrations for consumer and professional markets. Many active ingredients are supplied by MAI.

The company's Lawn and Garden business segment encompasses multi-purpose insecticides, insect control sprays, insect control granules, topical insecticides, insecticide concentrates, herbicides, aquatic herbicides, granules for grubs, insect growth regulators, turf and ornamental fungicides, and numerous other products. Some of CSI's brands in the Lawn and Garden segment include Permethrin, Bifen, Cyonara, Cyper, Eraser, Pramitol, and Surrender.

CSI's Animal Health business segment includes insecticides for dogs and cats for killing fleas, ticks, chewing lice, flea eggs and larvae; topical insecticides; misting concentrates; fly baits; insecticide spray for horses; and insect growth regulators. Some of CSI's brands in the Animal Health segment are Permethrin, Prefurred, Cyonara, Pystol, Martin's, Pyrofos, and Vector-Ban.

CSI's Agricultural Chemical products include granules, liquids, dusts, and wettable powders for the agricultural chemical industry. The main active ingredients marketed are atrazine, permethrin, chlorpyrifos, diazinon, malathion, acephate, triclopyr, glyphosate, cypermethrin, and lambda-cyhalothrin. These products are available through distributors that service the agricultural community. The Pramitol herbicide is sold exclusively to distributors that service professional channels, and some of the insecticides are also sold in concentrations too strong to be sold in retail outlets. Approximately 80% of the sales of the Agricultural Chemical Sales business unit moves through non-consumer channels.

CSI's Professional Pest Control business unit manufactures and markets termiticides and general pest control products through distributors. These products are sold in concentrates, wettable powders, dusts, baits, granules, aerosols, flowables, and emulsified concentrates. The main active ingredients are permethrin, bifenthrin, borates, imidacloprid, chlorpyrifos, diazinon, malathion, acephate, and cypermethrin. These insecticidal products are sold under the Surrender and Martin's labels.

CSI also manages the sales and marketing of biocide active ingredients for MAI in the North American region. The company's biocides products are used in architectural coatings, stains, grouts and sealants, and for the protection of wood, wood composites, and plastics. The biocide active ingredients marketed by CSI include folpet, captan, chlorothalonil, diuron, tebuthiuron, propiconazole, and tebuconazole.

Since 2005, there have been more than 22 new products introduced. In early 2010, CSI launched Optimate SC, an insecticide containing gamma cyhalothrin for use against adult and immature beetles, darkling beetles, and hide and carrion beetles. The company also launched two products under the Pyrofos brand: Pyrofos 1.5 ULV containing chlorpyrifos to control adult mosquitoes in outdoor areas; and Pyrofos CS which is a micro encapsulated premise insecticide to be used in and around livestock, housing and commercial buildings. In 2011, the company launched the first post-patent fipronil products under the Taurus brand, including Taurus G, a granular insecticide containing 0.0143% fipronil, and Taurus SC, a liquid formulation containing 0.8 lb of fipronil per gal.

It is estimated that nearly 75% of the company's sales are to professional and non-retail channels. Total U.S. sales of CSI's consumer pesticides, herbicides, and related products are estimated at $21.3 million in 2011.

Table 9-32: CSI's U.S. Sales of Pesticides and Related Products to Consumer Markets by Product Category, 2011

Product category	$ Thousand	% Of total
INSECTICIDES		
Non-plant outdoor	5,900	27.7
Pet	4,400	20.7
Household insecticides	3,400	16.0
Garden	1,600	7.5
Total	15,300	71.8
HERBICIDES		
Non-selective	6,000	28.2
TOTAL	**21,300**	**100.0**

MARKETING POLICIES

CSI's consumer products are marketed nationally, but sales are concentrated in the Sunbelt and Western states. The company's vice president of sales oversees all sales and marketing activities, with the support of one inside salesperson. All sales move through distribution channels, with the exception of retail outlets in Texas and private-label sales to other suppliers. The company's retail sales are focused on independent dealers. CSI recently hired a business manager for the growing biocides business. The company also has a new national sales manager for the Pest Control business segment.

ADVERTISING

CSI had no TME in 2010 or 2011. The company participates in trade shows, but otherwise does minimal advertising.

FACILITIES

CSI maintains a manufacturing and distribution center at its headquarters in Pasadena, TX, and operates four Houston-area retail stores in Pasadena, Bissonnet, Sagemont, and West Houston. Regional distribution centers are located in St. Joseph's, MO, Helena, AR, Goldsboro, NC, and Pasco, WA. The company has limited manufacturing capabilities through facilities in St. Joseph's, MO, Greenville, MI, and Ennis, TX.

OUTLOOK

CSI is an important supplier of pesticides, herbicides, fungicides, and rodenticides to professional and consumer outlets. The company has been aggressive in acquiring new product lines and in formulating products for professional applicators. In July 2011, MAI announced that it would combine the activities of Quali-Pro, its Raleigh, NC-based brand focused on turf and ornamental products, with CSI. The integration of Quali-Pro with CSI is intended toward attaining a more comprehensive portfolio of effective products in the environmental solutions market.

Approximately half of the company's retail sales are believed to be through its four retail stores in the greater Houston area, and sales at these stores are forecast to grow at moderate rates over the forecast period.

With the launch of new products in the pet and garden markets, CSI's consumer sales are projected to grow at the annual rate of 2.5% over the forecast period, reaching about $24.1 million in 2016.

Table 9-33: Forecast U.S. Sales of Pesticides and Related Products to Consumer Markets by Product Category, 2011 to 2016

	$ Thousand	
Product category	**2011**	**2016**
INSECTICIDES		
Non-plant outdoor	5,900	6,675
Pet	4,400	4,950
Household insecticides	3,400	3,845
Garden	1,600	1,800
Total	15,300	17,270
HERBICIDES		
Garden	6,000	6,790
TOTAL	**21,300**	**24,060**

THE DIAL CORPORATION

OVERVIEW

The Dial Corporation is a leading manufacturer of consumer products in the United States. Its products date back to 1868 with the introduction of Armour Star canned meats by Philip Danforth Armour. Over the following 20 years, Armour introduced a variety of cleaning products, including laundry detergent and soap, for which Dial Corporation has become well known. Dial now offers a range of personal care, laundry, home care, and food products.

Dial became a subsidiary of Henkel AG & Co. KGaA in March 2004. The deal was valued at $2.8 billion. Later in the year, Henkel exchanged its 28.8% investment in The Clorox Company for a newly formed subsidiary of Clorox that included several consumer products including Combat ant and roach killer. These brands were merged into Henkel's Dial business unit. Dial continued to streamline its operations and in March 2006, divested its foods business for $183 million to New Jersey-based Pinnacle Foods. The foods business is a direct descendant of the original Armour business, producing canned meat products and ready meals. The insecticide products are retained within the Combat line of products in Henkel.

TOTAL SALES

Henkel reports total global sales of €15.6 billion in 2011 ($20.21 billion). Of this, sales attributable to laundry and home care products, including Combat, are reported at €4.3 billion ($5.6 billion) or roughly 28% of Henkel's total sales. Of this, Combat sales for the United States are estimated at a rounded $7.9 million, with an exchange rate of €1.00 = $1.2959.

Combat is sold primarily through Dial's internal sales organization. Sales direct to retailer stores account for 90% of the total Combat sales. No Combat products are specifically designated for professionals and Dial does not private label any insecticides.

Combat's sales are estimated to be around 7% of the Henkel's Laundry and Home Care Products sales in 2011.

PRODUCTS

The Dial Corporation has two lines of roach and ant control products in its Combat product line: Combat Source Kill and Combat Source Kill Max. Combat Source Kill products have hydramethylnon active ingredient, killing ants and roaches through stomach indigestion. Source Kill products act slowly, allowing pests to return to their colony/nest before dying to poison other pests in the colony/nest. Combat Source Kill Max has fipronil active ingredient, killing ants and roaches by contact or indigestion. Source Kill Max products have a fast-acting formula which gives immediate results, killing pests in hours.

The Combat range of products is available nationwide through a variety of retailers including: hardware stores such as Ace, Sears, and True Value; home centers such as Home Depot and Lowes; food stores such as Pathmark, ShopRite, and Foodarama; drug stores such as Walgreens, Rite Aid, and Duane Reade; and mass merchandisers such as Wallmart, and Target, Family Dollar, and Dollar General.

ADVERTISING

Overall, Dial provides strong advertising support for its brands, conducting a range of both print and television ads. There is no reported TME in 2010 or 2011 to support the Combat brand although the company reports it uses print ads with coupons.

FACILITIES

Henkel is based in Scottsdale, AZ, and currently has around 47,800 employees in 126 countries. Henkel operates 188 production facilities in 57 countries. The products for Combat line are produced in a facility in Korea.

OUTLOOK

Dial's laundry and home care product segment witnessed almost flat sales in fiscal year 2011. Sales in this segment are mainly driven by gains in international sales and detergents; however, with the weak economy globally, sales also declined marginally. Dial continues to provide only minimal support to the mature Combat line, with limited promotion and no new product activity. Therefore, sales growth for Combat is expected to remain low, at just 1% to 3%, over the forecast period.

Table 9-34: Dial's Outlook for Pesticides, 2011 to 2016		
Year	**$ Million**	**Average annual growth, %**
2011	7.9	-
2016	8.5	1.5

EASY GARDENER PRODUCTS, INC.

OVERVIEW

Easy Gardener Products, Inc., based in Waco, TX, is a manufacturer and distributor of lawn and garden products. The company started in 1983 with a mission to develop lawn and garden products for consumers which achieve positive results with minimal effort.

Easy Gardener emerged from voluntary Chapter 11 bankruptcy in 2006. It was purchased by H.I.G. Capital of Miami, FL, and continues to operate as Easy Gardener Products, Inc. becoming one of the H.I.G. group's of consumer products companies.

Between 1992 and 2000, the company made several acquisitions which are important to Easy Gardener today. The company now manufactures and distributes over 200 products to the retailers in the United States, Canada, and the United Kingdom. The company's product lines include landscape fabrics, shade fabrics, fertilizers, tree care products, landscape edging, sun screen fabrics, netting, and plastic fencing.

Table 9-35: Acquisitions by U.S. Home & Garden, 1992 to 2000

Date of acquisition	Acquired company/line	Description
August 1992	Golden West Chemical Distributors Inc.	Manufacturers of humic acid-based products designed to improve crop yield
September 1994	Easy Gardener Inc.	Manufacturer of fabric landscaping products
August 1995	Emerald Products LLC	Manufacturer of decorative landscape edging
August 1996	Weatherly Consumer Products Group Inc.	Manufacturer of consumer lawn and garden products, including fertilizer spikes
May 1887	Plasti-Chain	Product line of plastic chain links and decorative edging acquired from Plastic Molded Concepts Inc.
February 1998	Weed Wizard Inc.	Product line of replacement heads and parts for strong-line weed trimmers acquired from Weed Wizard Inc.
March 1998	Landmaster Products Inc.	Manufacturer of polyspun landscape fabric products
May 1998	Lawn and garden specialty fencing product lines of The Tensar Corp.	Manufacturer of high-performance polymeric grid and mesh products.
October 1998	Ampro Industries Inc.	Manufacturers and sellers of specialty seed and mulch products
June 1999	Egarden Inc.	Sales of gardening-related products to the end consumer
May 2000	Findplants.com	Electronic horticulture catalog and business-to-business service for commercial growers and wholesalers

SALES AND PROFITS

H.I.G. Capital is a privately held company and, as such, does not release financial information.

The last year that Easy Gardener Products, Inc. reported as a public company was in 2005 when sales were $83 million and profits were $6.0 million. Sales in 2011 are estimated by Kline to be around $110 million, growing with a rate of 7% annually in the last two years. Jobe's fertilizers account for approximately $22 million, or about 20% of the total sales in 2011.

The company states that the acquisition by H.I.G. Capital allows Easy Gardener Products the resources and flexibility to pursue its strategic growth plans. They plan to place more emphasis on new product development and less on acquisitions in the forthcoming years.

CONSUMER PESTICIDES AND FERTILIZERS

Easy Gardener's consumer lawn and garden pesticide and fertilizer products were obtained when U.S. Home & Garden purchased Weatherly Consumer Products Group. Weatherly was a holding company formed in 1988 for the purpose of acquiring and managing International Spike Inc. when the company's founder relinquished control. The change in ownership was effective January 1989. In the fall of 1989, Weatherly acquired Ross Daniels Inc. of Des Moines, IA, a manufacturer of fertilizers, root feeders, garden netting, and related products, and merged its product line with the existing product line of Weatherly.

The primary consumer lawn and garden products marketed by the company are as follows:

<u>Landscape Fabric</u>: Easy Gardener markets different types of landscape fabric in varying thicknesses and strengths under the trade names Weedblock, Micropore, Pro Weedblock, and Landmaster. WeedBlock Landscape Fabric was the company's first product.

<u>Fertilizer and Plant Food</u>: Easy Gardener markets a variety of indoor and outdoor specialty fertilizer and plant food spikes primarily under the brand names: Jobe's and Ross. Jobe's fertilizer products include fertilizers for trees, shrubs, flowering plants, vegetables, and indoor/outdoor houseplants. Ross Root Feeder is an important product with the company for watering and fertilizing of trees. Easy Garden also has a number of root feeder refills.

<u>Landscape Edging</u>: Easy Gardener markets a variety of functional edgings and decorative borders. The company has Emerald Edge, Ultra-Edge, and Fiber Edge under the functional edgings. For decorative bordering, the company supplies: Adirondack, and Country Classic Border, which are flexible resin-based borders; Forged Iron Border; and Log.

Garden Care: Easy Gardener markets a number of products to keep owls, birds, and deer away from the garden. It also has pond netting, plant tree protection products, garden bed kit, and river stones in this category.

Eco Friendly Products: Easy Gardener markets organic-based fertilizer spikes which help build a nourishing environment that promotes beneficial microbial activity at plant roots. Under the Jobe's trade name there are four different varieties: Organic – All Purpose, Organic Vegetable, Organic Container & Bedding, Organic Rose & Flowering Shrub. The company also has organic fabrics for landscaping under the WeeBlock brand, and some organic products for landscape edging and garden care. Jobe's Organics fertilizer products are the latest addition to the company's product portfolio.

Easy Gardener introduced sustainable and organic products to the lawn and garden market in 2008. These include Jobe's Organics fertilizer spikes and additions to the WeedBlock landscape fabric line using recycled, corn-based, and biodegradable materials.

MARKETING POLICIES

Easy Gardener sells to the top 100 lawn and garden retailers in North America including Home Depot, Lowe's, Ace, TrueValue, Menards, and Orchards. The company is growing its international sales and is developing relationships with distributors outside the United States, particularly in Western Europe.

Point-of-purchase displays, in-store consumer promotions, and distinctive packaging are the thrust of Easy Gardener's promotional effort because management believes that a large portion of sales are derived from impulse purchases. Web purchasing is not available. Easy Gardener has begun endorsing the "Weed Out Hate" initiative in 2011. The company believes that this community can play an important role in inspiring children to become gardeners.

The company relies more on "account specific" marketing and less on broad media. It plans to continue focus on marketing with garden centers and distributors for their product sales in the coming years.

ADVERTISING

No TME was reported for Easy Gardener Products for 2010 or 2011.

FACILITIES

Easy Gardener's headquarters is located at Waco, TX. The fertilizer products of Easy Gardener are manufactured and packaged at its plant in Paris, KY. European operations are managed in London. The company employs over 250 people in North America and Europe.

OUTLOOK

Easy Gardener Products has held a stable position in a low-growth market. It has grown its product line from landscape fabrics to eco-friendly fertilizers in the past 25 years. It is contending with particularly limited expansion in the houseplant category, demonstrated consumer resistance to tree and shrub fertilizers, and changed consumer preferences in product forms. The company faces strong competition from other equally well-established suppliers, most notably Miracle-Gro, now owned by the Scotts Company.

The company's acquisition by H.I.G. Capital has given Easy Gardener Products the needed resources to capitalize on its brands, product development, and strong customer relationships, and increase its sales opportunities in Western Europe. The company continues to focus on convenience and innovation in gardening.

Easy Gardener Products is expected to realize a strong sales growth of 8% to 9% in the next five years. Sales of consumer fertilizer are expected to increase from an estimated $22 million in 2011 to around $33 million in 2016.

Table 9-36: Easy Gardener's Outlook for Pesticides and Fertilizers, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	22	-
2016	33	8.5

THE ESPOMA COMPANY

OVERVIEW

The Espoma Company, located at Millville, NJ, is a privately held manufacturer and marketer of organic and specialty plant foods. The company was founded in 1929 by H.G. Sanders. H.G. Sanders' great-grandson is the fourth generation of the family to manage the company.

The company started production in 1929 with its first product, Espoma Organic, which was a proprietary blend of natural ingredients. In the late 1940s, the plant food product specifically for acid-loving plants such as hollies, azaleas, and rhododendrons; called Holly-tone, was introduced, which became the company's best-selling product. Espoma established itself as a manufacturer of premium plant foods with the introduction of Espoma Organic, which is known today as Plant-Tone. The product line came to symbolize its philosophy of blending the finest quality organic ingredients to create the highest quality lawn and garden fertilizers.

Plant food has been the company's sole product focus in the past few years. Espoma produces 27 varieties of specialty plant food and a total of 35 products. As one of the leading manufacturers of natural organic fertilizers, it has become one of the largest consumers of natural by-products for plant food.

In 2009, The Espoma Company was named "Manufacturer of the Year" at the Lawn & Garden Marketing & Distribution Association's (LGMDA) Summit held in Ponte Vedra, FL. The company, today, manufactures over 48 products for various plant nutritional needs. The Espoma Company's products are sold by all the major distributors and retailers in the United States.

SALES AND PROFITS

Espoma is a privately held company and does not release financial information. The corporate revenues of the company are estimated to be around $19.6 million in 2011.

The company is committed to its long-term, profitable growth, continually reinvesting the profits to ensure long-term success. Espoma tries to ensure that its products are profitable not only for the company but for the entire supply chain. It also focuses on competitive pricing of its products to ensure adoption by mainstream gardeners.

CONSUMER FERTILIZERS

The company produces and markets branded fertilizers composed of mixtures of dried organic nutrients for consumer and professional use. It claims to sell only the finest organic ingredients available, using no fillers, sludge (bio-solids), inert, toxic, or hazardous materials.

Since the products are manufacture at the company owned facility, Espoma is able to closely control the quality of every bag it produces. In addition, the company uses independent laboratories to perform tests on all raw materials to ensure that no dust or unwanted particles are present, that the correct nutrients are present, and that the materials are the correct shape and size.

The company organizes its products into the product lines: Potting Mixes, Gro-tone, Earth-tone Pesticides, Organically Balanced Tones, Premium Organic Lawn Foods, Bio-tone Starter, Soil Perfector, Organic Traditions, and Quick Solutions.

The company, in the potting mixes category, has a complete line of potting mixes and soil amendments that can be used for organic gardening. The products in this category include, Espoma Organic Potting Mix, Espoma Organic Seed Starter Mix, Espoma Organic Cactus Mix, Espoma Organic African Violet Mix, Espoma Organic Orchid Mix, Espoma Organic Peat Moss, and Espoma Organic Perlite, Espoma Organic Vermiculite, and the new Espoma Planting Mix. These mixes are rich blends of natural ingredients.

Espoma's Gro-tone is an all-purpose plant food concentrate. This fertilizer is derived from farm-raised catfish fed with grains, minerals, and vitamins.

In 2008, the company introduced a new product line for garden pesticides under the brand name Earth-tone. There are eight products in the new line: Earth-tone 4n1 Weed Control, Earth-tone 3n1 Disease Control, Earth-tone Insect Control, and Earth-tone Insecticidal Soap, Earth-tone Slug & Snail Control, Earth-tone Bug & Slug Control, Earth-tone Moss Control, Earth-tone Horticultural Oil. Espoma launched Earth-tone Garden Fungicide for organic gardening in 2010. Espoma Planting Mix and Espoma Orgainc Vermicultie are launched by the company in 2011.

Espoma's Organically Balanced Tones with Bio-tone Microbes consists of 10 products to nurture flowers, shrubs and vegetables. It is composed of blends of natural fertilizer materials optimized for specific applications, as identified by product name. They are available in a ready-to-use (RTU) granular formula as opposed to liquid or powder. These products include Holly-tone, Flower-tone, Plant-tone, Rose-tone, Bulb-tone, Tomato-tone, Garden-tone, Tree-tone, Citrus-tone, and Palm-tone. The Tones are available in a variety of sizes ranging from 4 lb to 40 lb bags to meet the individual needs of a wide variety of gardeners. These products provide plants with all 15 essential nutrients, as a shortage of even one nutrient can prevent plant growth or reduce growth to disappointing levels. Also, they are intended to enrich the soil, creating a reservoir of nutrients for steady, continuous feeding.

The lawn products in the Premium Organic Lawn Foods category are Espoma Organic Weed Preventer, Espoma Organic Lawn Food 7-2-2, and Espoma Lawn Food 18-0-3. This product line of the company provides complete gardening solution with long lasting organic feeds, weed prevention, soil and grass nourishment making the lawn resistant to heat, drought, and other stress.

The above mentioned lawn products are known to be safe for use around children and pets. The products can be used to complement one another. In early spring, homeowners are advised to use Turf-tone on their lawns; the inorganics provide rapid greening and the organics, a slow, long-lasting feed. In early to late summer, Espoma Organic, a source of 100% organic nitrogen, is recommended to keep the lawn green and lush. Its low salt content helps to keep the plants from burning during the hot days of summer. In early fall, the use of Turf-tone is again recommended to nourish the lawn, strengthen the root system, and prepare the lawn for the following spring.

In 2008, the company launched two new products in the Bio-tone Bio Active Plant Foods line. They are Bio-tone Starter 4-3-3 and Bio-tone Starter Plus 4-3-3. These products help faster establishment of transplants. They are used at the time of transplanting to help increase root mass to avoid loss, and increase shoot growth and bloom count.

The company has also newly launched Soil Perfector, an all-natural soil conditioner. It is made from naturally derived, kiln-fired ceramic mineral, a process which creates durable, lightweight granule containing thousands of tiny storage spaces that hold the perfect balance of water, air, and nutrients for an improved soil structure.

The Organic Traditions brand is targeted at gardening enthusiasts who have special prescriptive needs or prefer to create their own custom plant food mixes. The line contains 11 single-ingredient products with natural organic supplements and natural soil amendments that are approved for organic gardening. The products in the Organic Traditions line include Compost Starter, Soil Acidifier, Bone Meal, Cottonseed Meal, Dried Blood, Garden Gypsum, Garden Lime, Garden Manure, Greensand, Kelp Meal, and Rock Phosphate.

As the brand name conveys, the Quick Solutions line is designed for gardeners who seek an immediate response in their flowers or vegetable plants. This product line provides high quality, fast-acting sources of nitrogen, phosphorous, and potassium. The products in the Quick Solutions line include Garden Food 5-10-5, Garden Food 10-10-10, Super Phosphate, and Triple Super Phosphate.

While Espoma's product line is oriented toward customers who prefer to use natural fertilizers and soil amendments, the company offers a limited line of synthetic fertilizers (see Quick Solutions). Espoma also includes synthetics in its Premium Organic Lawn Food line.

Espoma's U.S. sales of consumer fertilizers and pesticides are estimated at $19.6 million in 2011.

Table 9-37: Espoma's U.S. Sales of Pesticides and Related Products to Consumer Markets by Product Category, 2011		
Product category	**$ Thousand**	**% Of total**
Garden fertilizers	5,880	30
Lawn fertilizers	7,840	40
Pesticides and others	5,880	30
Total	**19,600**	**100**

MARKETING POLICIES

Espoma's products are widely distributed to lawn and garden centers in 26 states and are exported to Europe, the Middle East, and South Africa. Nine company staff members manage the sales and marketing of the products in the United States. Espoma's presence is the strongest in the Northeast states where the company started out, and now also has good distribution in the eastern half of the United States, from Texas to Illinois eastward.

Espoma's brands are carried by most major distributors and retailers in the eastern United States. The company's marketing strength is with independent retailers, although its product line has gained entry into some mass-merchandise retail outlets. The company does not produce private-label products for others. Its numerous dealers are listed on its website, which allows the customer to access the 10 closest retailers in the area by entering in a zip code.

ADVERTISING

Espoma's TME for 2010 was $61,200, which was spent on magazine and newspaper advertising. In 2011, TME accounts for $56,400, which is spent on advertising in magazines, newspapers, and Internet advertising.

Espoma's service orientation is evident on its website. Its consumer-friendly features include an online "FAQs" (frequently asked questions) section. The FAQs section provides money-saving tips and answers to practical everyday questions. There are also some easy instructional videos available for their consumers to watch.

FACILITIES

Espoma has its headquarters and manufacturing facility in Millville, NJ. The company employs around 25 people. Its state-of-the-art complex has evolved over decades with a dozen individual expansions beyond the main structure. The complex includes an office building, five finished goods and raw material warehouses, as well as several buildings for the processing and packaging of its products.

The company has continued to streamline its blending and packaging processes. The company installed new automated equipment in the 1990s for the blending and packaging of small bags of plant food. In the early 2000s, new packaging equipment was added, facilitating the conversion to plastic bags for the Tones line.

OUTLOOK

Espoma's overall product sales have declined in the past two years because of the low demand in the organic fertilizers and pesticides market and unfavorable weather conditions. The company expects to achieve a significant growth in the next five years, as the consumer interest in natural and organic gardening practices is expected to increase. The trend of growing interest in environmentally sound lawn and garden practices and growing foods with natural ingredients is stronger in the East, where Espoma has its operations.

Espoma has been actively involved for more than 40 years as an industry liaison in the American Association of Plant Food Control Officials (AAPFCO), which regulates the U.S. fertilizer industry.

Espoma is expected to realize 2% average annual growth of its product line over the forecast period. U.S. consumer sales are forecast to grow from an estimated $19.6 million in 2011 to around $22.2 million in 2016.

Table 9-38: Espoma's Outlook for Pesticides and Fertilizers, 2011 to 2016

	$ Thousand		
Product category	**2011**	**2016**	**Average annual growth, %**
Garden fertilizers	5,880	6,653	2.5
Lawn fertilizers	7,840	8,870	2.5
Pesticides and others	5,880	6,653	2.5
Total	**19,600**	**22,176**	**2.5**

GOOD EARTH HORTICULTURE

OVERVIEW

Good Earth Horticulture Inc., located in Lancaster, NY, is a manufacturer and distributor of lawn and garden horticulture products. The company was founded as GHB Nurseries in 1958 when it started retail business and grew into a distributor and producer of horticulture products over the time as GHB Enterprises. The company was incorporated as Good Earth Horticulture Inc. in 1999, specializing in organic garden chemicals.

Good Earth Horticulture has a sister company by the name of Good Earth Canada Limited, which operates a pet moss bog and packaging facility in New Brunswick, Canada. All of its products are exported to the United States and other overseas markets, such as Japan.

SALES AND PROFITS

Good Earth Horticulture is a privately held company and does not disclose financial information. Estimated sales of the company for 2011 are around $9 million.

CONSUMER FERTILIZERS

Good Earth Horticulture has a range of products under the Hoffman brand. This brand was created in 1934 as part of Hoffman Seeds to provide small gardening product packages to home gardening consumers. Over the years, many new horticultural products and packaging designs have been added to the Hoffman brand. Hoffman was first to offer lightweight, soilless potting mix for home gardeners. The brand now comprises a broad array of quality horticulture products for home gardeners.

The Hoffman range of organic fertilizers and water-soluble include Azalea & Evergreen Food, Bulb Food, Citrus Food, Garden Fertilizer, Palm Food, Perennial Flower Food, Plant & Shrub Starter, Rose Food, Tomato Food, Country Cottage Azalea, Rhododendron, & Evergreen Food, Country Cottage Bulb Food, Country Cottage garden Fertilizer, Country Cottage Perennial Flower Food, Country Cottage Tomato Food, Country Cottage all Purpose, Country Cottage Azalea, Holly, and Rhododendron. Sales of garden fertilizers are estimated to be about $8.5 million in 2011. The company has a dog and cat repellant for gardens.

Good Earth Horticulture also has a variety of soil conditioners, soil amendments, decorative soil covers, organic and natural food for plants and gardens, potting soils, specialty planting mixes, outdoor planting mixes, mulch products, and ice and snow melters. The company also produces specialty products for the golf course industry and other markets.

MARKETING POLICIES

Good Earth Horticulture sells its products to independent stores, such as garden centers, nurseries, and chain stores, such as Home Depot. It also sells to large soil mixing companies, such as the Scotts Company.

The company focuses on marketing program which will assist gardeners with a multi-step gardening program guaranteed to produce the most beautiful Lawn & Garden results.

ADVERTISING

Good Earth had no TME for 2010. In 2011, TME is $200,000 for Internet advertisements. Information about its various products can be found on their website, which includes a Garden Wheel section that informs a consumer about products that can be used for different plants.

FACILITIES

Good Earth Horticulture's facilities are located in the town of Lancaster, NY. The company's facilities include an office building and a 60,000 square feet warehouse.

OUTLOOK

Good Earth Horticulture has been involved in the composting of yard waste for various towns and Buffalo, NY. The company focuses on providing premium quality products to the consumers which are lightweight and easy to use. The company also values improved package designs for the products to sell well in the self-service markets. Good Earth Horticulture's garden fertilizer sales are expected to reach around $9.6 million in 2016, growing at an average annual rate of 2.5%.

GREEN LIGHT COMPANY

OVERVIEW

Until August 2008, Green Light Company of San Antonio, TX, was a 100% employee-owned company, which was founded in 1947 as the Klauss-White Company. The company was purchased by Valent in 2008 and has operated since as a subsidiary.

The original Klauss-White Company produced quality lawn and garden products for sale to homeowners, ranchers, farmers and pest control operators. In 1959, the company name was officially changed to the Green Light Co. In December 1994, the business was transformed into an employee-owned company under the Employee Stock Ownership Framework (ESOP). Green Light is a member of the Texas Nursery and Landscape Association.

In the early 1950s, Green Light had begun to expand with the addition of products such as its Bug & Snail Bait in small package sizes, Double Duty Rose & Flower Care, Root Stimulator, and 3-Step Flea & Tick Control Program. After its name change, it relocated to a new manufacturing facility and continued to expand its product line for consumers with liquid and dry insecticides, plant foods, herbicides, rodenticides, and gardening accessories.

More recently, Green Light has been moving toward new organic and natural product lines, which are more environmentally friendly. In October 2003, Green Light and CedarCide Industries entered into a key agreement for Green Light to manufacture and market the retail line of chemical-free CedarCide products, which are derived from Texas Red Cedar. In addition, Green Light acquired the rights to sell Spinosad, a naturally derived pesticide from Dow AgroSciences.

In April 2012, Valent announced an agreement with The Scotts Company wherein Scotts will acquire certain assets of the Green Light Company, including trademarks for the Green Light brand family: Amaze Grass & Weed Preventer2, Super Bloom, Rose Defense, Conquest Insecticide Concentrate, and Yard Safe Insect Repellent, among others. In future reports Green Light will be profiled as a component of The Scotts Company.

SALES AND PROFITS

Green Light does not release financial information. Sales for fiscal year 2011 are estimated at $21 million.

CONSUMER INSECTICIDES AND FERTILIZERS

Green Light markets a wide variety of consumer insecticides, fertilizers, and related products under the Green Light label. The majority of products include lawn and garden herbicides, fungicides, and pesticides for household, houseplant, and lawn and garden use. Plant care products and specialty items are sold but are much fewer in number.

Products are sold in different formulations and packaging, including ready-to-use liquids, ready-to-spray (RTS) liquids, concentrates, dusts, and granules. Pesticides are Green Light's highest-value product category. The company markets both environmentally oriented and traditional lines. The traditional line is made with synthetic chemistries such as permethrin, deltamethrin, and malathion.

Its environmental line of pesticides is based on *Bacillus thuringiensis* (BT), natural plant oils, and elemental sulfur. BT-based products include BT Worm Killer and Dipel Dust. Wettable Dusting Sulfur is the only sulfur-based product. It has more recently introduced spinosad–based products including Fire Ant Killer with Spinosad, and Lawn & Garden Spray with Spinosad2. Neem-based products such as Rose Defense and Neem Concentrate round out its line of organic products.

The company's extensive line of traditional herbicides are based on a wide variety of active ingredients including glyphosate, triclopyr, MCPP, dicamba, betasan, Gallery, Dimension, and Trimec. Its granular and liquid fungicides are based on myclobutanil and Bayleton chemistries, as well as the environmentally friendly neem oil. Insect control products include organic neem and spinosad formulations, as well as products based on Safari, Arena, permethrin, and other ingredients.

Green Light's plant care products include three general plant fertilizer formulations, a soil acidifier, two root-stimulants/starters, and a bloom stimulator. The company also offers several specialty items.

Since 2007, the company has made over for its products, putting emphasis on the organic products to retain shelf space in retail outlets in the shadows of other larger suppliers like Scotts, Bayer, Spectrum, and others. They also modified their packaging along with changing the brand names to appeal more consumers.

Total sales of Green Light's consumer pesticides and related products are estimated at $21 million in 2011.

Table 9-39: Green Light's Estimated U.S. Sales of Pesticides and Related Products to Consumer Markets by Product Category, 2011		
Product category	**$ Thousand**	**% Of total**
Outdoor insecticides	11,800	56
Lawn herbicides	2,600	12
Household insecticides	1,900	9
Fungicides	1,700	8
Nonselective herbicides	1,600	8
Garden herbicides	700	3
Garden/ornamental fertilizers	700	3
Total	**21,000**	**100**

MARKETING POLICIES

Green Light markets to consumers through retailers and dealers in the Sun Belt states and on the West Coast, although some products are offered on a national basis. All sales are to U.S. consumer outlets and move through distribution channels. The company has a sales force that includes seven regional managers and 16 sales representatives. The company produces private-label products for other companies. Green Light employs approximately 70 people.

The company offers direct purchases as a service to its retail customers who are unable to find certain products in their local area, although it encourages them to buy from dealers whenever possible. Products are shipped only within the continental United States.

ADVERTISING

Green Light had no TME for 2010 or 2011. The company has previously stated that it used its advertising budget on cooperative print and radio advertising, and it participates in trade shows.

FACILITIES

Green Light maintains a manufacturing and distribution center in San Antonio, TX. Sales offices are in Dallas and Houston, TX; Denham Springs, LA; Albuquerque, NM; Mims, FL; and Duluth, GA.

OUTLOOK

Green Light has been an important regional supplier that was aggressive in acquiring new product lines. Its sales declined sharply in the late 1990s, although they grew at double-digit levels in the early 2000s with sales driven by the company's new focus on environmentally oriented products. Its environmental orientation has remained successful, with the focus on its lines of organic and natural products, such as the Cedarcide, and Spinosad brands.

Green Light's products will be integrated into The Scotts Company, with a continuing focus on its environmentally oriented products. Its product line is expected to benefit from Scott's wide-scale distribution and development capabilities in the lawn and garden industry.

With the new focus of The Scotts company behind it, Green Light is expected to grow at a minimum of 10% per year over the next five years, reaching $33.8 million by 2016.

Table 9-40: Green Light's Estimated U.S. Sales of Pesticides and Related Products to Consumer Markets by Product Category, 2011 and 2016

	$ Thousand	
Product category	**2011**	**2016**
Outdoor insecticides	11,800	19,000
Lawn herbicides	2,600	4,200
Household insecticides	1,900	3,100
Fungicides	1,700	2,700
Nonselective herbicides	1,600	2,600
Garden herbicides	700	1,100
Garden/ornamental fertilizers	700	1,100
Total	**21,000**	**33,800**

HARTZ MOUNTAIN

OVERVIEW

The Hartz Mountain Corporation manufactures and markets more than 2,000 pet products and supplies, including nutritional items, pet foods and treats, toys, grooming aids, birdcages and small animal homes, aquarium kits, reptile accessories, insecticides, cat litter, and miscellaneous pet items. The company has also diversified into the area of commercial real estate and in January 2012, a Japanese firm, Unicharm Corporation, acquired 51% stake in the common share of the Hartz Mountain Corporation, from Sumitomo Corporation. In 2004, Hartz Mountain had sold its pet care department to Sumitomo Corporation. Unicharm Corporation is the leading pet care products manufacturer in Japan.

Hartz Mountain originated in 1926 when Max Stern, a German immigrant, began selling singing canaries imported from Germany to department stores in the United States. In 1932, the company expanded, selling packaged bird food, canaries, parakeets, hamsters, and supplies across the United States and Canada. In 1959, Max Stern's son, Leonard, joined the company and helped broaden the product line into goldfish, tropical fish, and aquatic supplies. By the mid-1960s, the company had a full line of dog and cat products, and underwent a transforming expansion as the concept of a complete pet supply department emerged at thousands of supermarkets and mass merchandisers throughout North America and the United Kingdom. Over the next 15 years, modern research, manufacturing, and nationwide distribution facilities were built, and a large national sales force was assembled. By the early 1980s, Hartz Mountain's products were sold in more than 40,000 U.S. and Canadian retail outlets.

The company continued its expansion in the 1990s, adding the Wardley and L/M brands, as well as rawhide and natural treat manufacturing facilities in the United States and Brazil. Research facilities were expanded, and a new generation of pet care products was introduced under the Hartz Control Pet Care System brand, the first line of veterinary quality flea control products to be available over the counter.

After operating the company for more than 75 years under the Hartz Group umbrella along with the family's real estate operations, the Hartz pet business was purchased in 2000 by investment group J.W. Childs Associates, L.P., a private equity investment firm based in Boston, MA. In 2004, the operations of Hartz were acquired by the Sumitomo Corporation of America (SCOA), a subsidiary of Sumitomo Corporation. The acquisition allowed Hartz to undertake a number of new business initiatives, like the development of new markets and distribution channels in Asia and Europe. In 2005, the company acquired Harper Pet Products Inc. of Bedford Park, IL, as well as My Pet Inc. of Wray, CO, both of which offered synergistic pet care lines.

In addition to its original pet product business, Hartz Mountain has built a substantial real estate business over the years with holdings in New York City and New Jersey that dwarf its pet products business. With the sale of the Hartz pet business in 2000, the real estate business is a separate company from the original pet and real estate operations under the name Hartz Mountain Industries, Inc. It is still operated by the Stern family. By 2008, its real estate portfolio comprised more than 200 buildings containing over 38 million sq ft. The business continues to post gains and is considered one of the largest privately held commercial real estate portfolios in the United States. Hartz employs a comprehensive approach to real estate with full-scale, in-house departments for leasing, management, finance, acquisition, architecture, construction, development, planning, marketing, design, and property management.

SALES AND PROFITS

Sales of Hartz Mountain's more than 2,000 pet care products are approximately $575 million in fiscal year 2011. Total U.S. sales of insecticides by Hartz Mountain in 2011 are estimated to be flat at $150 million. The usage of insecticides decreased in 2010, but increased in 2011 to keep the overall insecticides usage almost constant.

CONSUMER PESTICIDES

Hartz Mountain is the leading domestic supplier of pet insecticides to mass market and pet store retailers. Its products are sold under the Hartz label, with a secondary brand, Ultraguard, which was launched to replace the earlier brands such as 2-In-1, Control Pet Care System, and Advanced Care Brand. The Ultraguard line includes several dozen products based on flea and tick control. Products include topicals (drops, sprays, dips, and powders), as well as chewable tablets, capsules, collars, ear mite treatments, shampoos, carpet powder, and yard and kennel spray. Formulations are geared to the weight of the animal. There are various separate offerings for dogs (ranging from 15 lb and under to 61 lb to 90 lb and above), and for cats (less than 10 lb and more than 10 lb). No new flea or tick products have been introduced since 2006 when Hartz launched a new line of cat drops. However, Hartz has made some product modification in their Ultraguard range by using a Pro-glide applicator for the Hartz Ultraguard Flea and Tick drops that disperses the fluid evenly at skin level of the dogs. This design of this applicator is made to suit long-hair and short-hair dogs. This applicator is available only in the Ultraguard Pro range of products.

Hartz's overall sales of insecticides have remained strong despite the introduction of flea and tick medications sold by veterinarians. Its sales and market share of collars has grown at a moderately strong rate, even after acquisition by Sumitomo Corporation. The company holds a major share of the total OTC pet insecticide market in the United States and is a leading player in most pet care segments.

However, Hartz continues to face challenges related to investigation lawsuits, customer unrest, side-effects, and product recalls. In 2010, there were a small number of lawsuits filed by cat and dog owners who claim their pets were sickened or killed by anti-flea or tick medication manufactured by Hartz Mountain along with four other companies. In September 2010, the company voluntarily recalled one specific lot of Hartz Naturals Real Beef Treats for Dogs due to a potential Salmonella contamination. In March 2006, the company removed Hartz Advanced Care 4-in-1 Flea and Tick Drops Plus for Cats and Hartz Advanced Care 3-in-1 Flea and Tick Drops for Cats from retail outlets following at least 7,000 reports of toxicity that caused injury and death to pets. The cases first came to light in 2001. In 2002, the Environmental Protection Agency asked Hartz to re-label the products to ensure that they were being used correctly. While the charges were quickly addressed by the company without much damage to its reputation, it was decided that the products should be removed from store shelves. In November 2007, Hartz voluntarily recalled one lot of Hartz Vitamin Care for Cats due to concerns that one or more bottles within the lot may have been potentially contaminated with Salmonella.

MARKETING POLICIES

Hartz Mountain maintains the leading market position in all five main pet product categories, including flea and tick control products, and enjoys strong consumer brand loyalty and awareness. The company's products are sold in the important primary pet care channels in North America, including national grocery chains, mass merchandise stores, independent pet specialty retailers, and pet superstores. The company faces competition from Merial's flea and tick control brand Frontline in the United States.

An estimated 65% share of the insecticide sales is distributed directly by the company to major retailers like Walmart, CVS, Safeway stores, and Kroger, etc. The remaining 35% sales are through the distributors who resell the products to the general retailers. The company does not produce any private-label products for mass merchandisers and other brands. However, the company manufactures some products on a contract basis.

Hartz Mountain maintains around five branch sales and three distribution offices throughout the United States. Mass merchandise and supermarket customers are serviced by a sales force of 30.

In May 2011, during the National Pet Week starting May 1, Hartz released a Pet Trend Report that was conducted on Hartz's behalf by Richard Day Research. The research included a poll of around 1,028 pet owners, half dog owners and half cat owners, to better understand the relationship they share with their pets. Hartz also introduced a New Pet Parent pack program to educate new pet owners about pet adoption and care.

In April 2011, Hartz signed a deal with Examiner.com to develop an advertising platform that will create a word-of-mouth marketing of Hartz's Ultraguard product range.

Consistent with its tradition, Hartz continues to facilitate the exchange of ideas with the veterinary community through partnerships with the University of Idaho, Ohio State University, Kansas State University, University of Florida, Tufts University School of Medicine, Ruskin Laboratories, Shedd Aquarium, and Young Veterinary Research. The company has a veterinary advisory board of respected doctors and is also a member of several important organizations in the pet care industry. These include the Animal Health Institute, APPMA (American Pet Products Manufacturer Association), Pet Industry Joint Advisory Council (PIJAC), and Delta Society.

Its community outreach activities are broad and include sponsorship of the Hartz Veterinarian of the Year Award, the Westchester Feline Club's Cat of the Year Award, the Hartz Cat Writer's Awards, the Hartz Mountain Senior Dog Award, the Karl F. Meyer-James H. Steele Gold Head Cane Award, and the sponsorship of veterinary technician scholarships.

ADVERTISING

Hartz Mountain had no TME for 2010 or 2011.

FACILITIES

Based in Secaucus, NJ, Hartz Mountain employs around 2,500 people and has six U.S. manufacturing plants, two of which produce insecticides. Its main R&D facility is located in Bloomfield, NJ. Small animal and fish research is conducted at the LM Animal Farm in Pleasant Plain, OH. The company's web site is located at www.hartz.com.

OUTLOOK

The company is expanding into Asian and European markets in an attempt to establish Hartz as a global pet care company. Hartz has also introduced a new system integrating procurement of raw materials, production, and inventory, which is expected to increase efficiency.

However, with the economic crunch in the U.S. market, sales of pet insecticides have been flat. This is due to consumers refraining from purchasing some non-necessary pet items and down-shifting from higher priced products to value priced items.

Through 2016, sales of pet products are expected to grow at an annual rate of about 7%, sales forecast to reach almost $210.4 million in 2016, as the company has started product improvement activities, possesses a few bulk orders, and has been thinking of a probable price increase.

Table 9-41: Hartz's Outlook for Pesticides, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	150.0	-
2016	210.4	7.0

HOWARD JOHNSON'S ENTERPRISES

In early 2012, Howard Johnson's Enterprises was acquired by Central Garden and Pet, a California-based manufacturer, marketer, and innovator of lawn and garden products and pet supplies for consumer and professional use. The following profile gives details on the company's 2011 performance prior to the acquisition.

OVERVIEW

Mr. Howard Johnson founded Howard Johnson's Enterprises Inc. of Milwaukee, WI, in 1962. The company, initially a regional supplier of fertilizers to farmers, is today a supplier of blended fertilizers and garden foods to the consumer and professional markets. It also markets fertilizer/herbicide products, insecticides, and ice-melting chemicals.

Howard Johnson's Enterprises remained a family-owned company, with founder Howard Johnson and other family members controlling 100% of the equity, until 2012. Its products were sold mainly through retailers and distributors, although the ZOOM! line of garden food products is available for purchase on its website.

SALES AND PROFITS

Howard Johnson's Enterprises releases limited financial information. Corporate sales are estimated at $35 million in 2011.

CONSUMER FERTILIZERS AND PESTICIDES

Consumer products sold by Howard Johnson's Enterprises either are private-label products or are sold under the Howard Johnson's brand. The private-label products are identical to those in the Howard Johnson's line and are primarily sold to large retailers. Most of the company's consumer fertilizer products are coarse granules. It no longer sells water-soluble products to consumers, although it markets such products on the professional side.

Howard Johnson's Enterprises maintains a website (www.hjefertilizer.com) for its consumer and professional customers. Much of the website is devoted to its products, which fall into four groups: Retail, Professional, Ice Melters, and ZOOM! The firm sells through retailers and distributors.

The ZOOM! line for consumers includes All-Purpose Garden Food for flowers, vegetables, and plants and Organic Garden Food. The professional line encompasses a variety of turf fertilizer formulations for use on golf courses, lawn care services, sod farms, nurseries, landscaping services, sports fields, and agricultural growers.

Howard Johnson's retail line of products includes:

- Garden foods made with premium granular fertilizers and ingredients with products such as Amazing Azaleas, Beautiful Bulbs, Terrific Tomatoes, and Vibrant Veggies
- Lawn fertilizers such as Turf Food for the North and South, which is a four-step lawn care program providing lawns with a variety of nutrients needed to be thick, green, and weed-free
- Insect control products, such as Lawn Insect Control Granules and Fire Ant Killer
- Pasture fertilizer with nutrients formulated specifically for pasture and meadow grasses
- All-season lawn and garden fertilizers, such as Crabgrass Control Plus and Weed & Feed with Lazer

Howard Johnson's professional line of products includes:

- Golf Course/T&O Fertilizers such as Greens Fertilizers 100 SGN, and Fairway Fertilizers 150 SGN
- Fertilizers with Nutri-Life
- Pre-emergent herbicides, such as Barricade, Team-Pro, and Tupersan, and others
- Post-emergent herbicides, such as Viper, Escalade, Surge, and others
- Insect control products, such as Acelepryn, Mallet, and others
- Granular fungicides products, such as T-Methyl and Eagle

The ice melt products suitable for use on concrete and other surfaces are: Zero Ice, effective immediately at temperatures below zero degrees; Zero Ice with Calcium Chloride, generating heat as it quickly dissolves melting ice and snow; and Zero Ice Ultra, one of the preferred ice melters for airports. Last year, the company introduced Pet-Guard, a new pet safe ice melter.

Consumer fertilizers, herbicide/fertilizer blends, and insecticides constitute about 50% of the company's overall business, which is estimated at $18 million in 2011. About half of its consumer sales are derived from straight fertilizer products and the remaining half from fertilizer/herbicide blends and insecticides. Ice melters account for a small percentage of consumer sales.

Table 9-42: Howard Johnson's Estimated U.S. Sales of Pesticides and Related Products to Consumer Markets by Product Category, 2011		
Product category	**$ Thousand**	**% Of total**
Fertilizers/garden and lawn	9,000	50
Fertilizers/herbicides	8,000	45
Insecticides, other	1,000	5
Total	**18,000**	**100**

MARKETING POLICIES

Thirty company sales representatives market Howard Johnson's products nationally. Approximately 60% of consumer product sales are made directly to retail accounts and 40% to distributors, brokers, and buying groups. Branded consumer products are primarily retailed through Walmart, Home Depot, farm and ranch supply stores, grocery stores, and a number of hardware stores and hardware chains.

ADVERTISING

Howard Johnson's had no TME for 2010 or 2011. The company supports cooperative advertising programs with its distributors and retailers.

The company's website reaches out to consumers and professionals, providing descriptions of its offerings including specifications on its products and graphics of its packaging. Material Safety Data Sheets (MSDS) are provided online for the professionals and can be requested for retail products by filling out an online request form.

FACILITIES

Milwaukee-based Howard Johnson's Enterprises is a privately held company and has a manufacturing plant in Neosho, MO. The company has nine warehousing facilities in Monroe, WA, Phoenix, AZ, Hillsboro, TX, Denver, CO, Kansas City, MO, Madison, WI, Carlisle, PA, Marion, OH, and Greenville, SC. It has approximately 40 full-time employees and increases its staff with temporary help during peak production periods.

OUTLOOK

Howard Johnson's Enterprises will be integrated into Central Garden and Pet, and its products are expected to benefit from the company's broad distribution reach and developmental capabilities in the lawn and garden industry. Howard Johnson's sales are expected to grow at a minimum of 5% over the next five years, reaching almost $23.0 million by 2016.

Table 9-43: Howard Johnson's Estimated U.S. Sales of Pesticides and Related Products to Consumer Markets by Product Category, 2011-2016

	$ Thousand	
Product category	**2011**	**2016**
Fertilizers/garden and lawn	9,000	11,500
Fertilizers/herbicides	8,000	10,200
Insecticides, other	1,000	1,250
Total	**18,000**	**22,950**

J.T. EATON

OVERVIEW

J.T. Eaton & Co., Inc. is a privately held company that was founded in 1932. Over the years, the company has built a strong reputation in the professional market as a leading supplier of traps and baits for rodents, roaches, and other household pests. In 1949, Stanley Baker purchased the company and has remained its president; his sons now also hold key management positions in the family-run company. J.T. Eaton holds the distinction of being the first company to develop the paraffin bait block, as well as nonpoisonous glue board traps.

SALES AND PROFITS

Total sales for J.T. Eaton are estimated at $22 million in 2011. Sales of chemicals and mechanical devices are split between the professional and the retail consumer. Sales to pest management and sanitary supply professionals continue to remain the main focus. Professional sales comprise 60% of overall revenues, with consumer sales representing the remaining 40%. After massive destruction in Louisiana and Mississippi from Hurricane Katrina in September 2005, the company launched a Mold Detection Service for professionals. Although J.T. Eaton has extensive representation outside the United States, with distributors in Latin America, the Caribbean, Europe, the Middle East, and Asia, about 90% of sales are in the United States.

J.T. Eaton has a growing private-label business, performing contract manufacturing services for several major companies. In total, contract manufacturing accounts for less than 10% of its overall business.

In the consumer sector, rodenticides, other pesticides, and repellents represent about half the business, and glue traps and other mechanical devices for pest control represent the balance.

Total U.S. sales of consumer pesticides are estimated at $8.8 million in 2011. Of this, mechanical devices represented the single largest share at 50%, or $4.4 million, followed by rodenticides at 35%, or $3.1 million.

Table 9-44: J.T. Eaton's U.S. Sales of Pesticides and Related Products to Consumer Markets by Product Category, 2011		
Product category	**$ Thousand**	**% Of total**
Mechanical devices	4,400	50
Rodenticides	3,080	35
Household insecticides	880	10
Repellents	440	5
Total	**8,800**	**100**

CONSUMER PESTICIDES AND FERTILIZERS

J.T. Eaton's consumer products include various chemical compounds and mechanical devices for the control of rodents, insects, and birds. It has adapted from its professional line two rodenticides for sale to households: JT Eaton Bait Blocks (based on diphacinone) and AC Formula 90 (based on chlorphacinone). Both rodenticide brands have various offerings, such as packages in convenient throw packs or added molasses or peanut butter.

The company's primary insecticide offering to households is the Answer Boric Acid Insecticidal Dust. The remainder of the retail line is a collection of glue boards for rats and mice, and a large collection of traps for flies, wasps, rodents, spiders, moles, gophers, and snakes. The company also offers a bird repellent, a line of flyswatters, and mosquito coils.

New product activity continues to be high, with several exciting new launches. These include J.T. Eaton Bedbug Spray for Luggage, a permethrin-based product that kills bedbugs for four to six weeks. J.T. Eaton was the first company to introduce such a product, mainly in response to rising (and highly publicized) bedbug problems in major cities across the United States. Other recent new product introductions include two easy to use new snap traps that can be set with one hand or foot, and top loading bait stations.

In 2008, J.T. Eaton launched the first chipmunk bait, as well as a new line of natural drain cleaners called Eco-Army. This latter product may be also used as a septic tank condition or birdbath cleaner, providing mosquito-free water.

In 2009, the new product launches include powder coated insecticidal dusters, Double Jeopardy Glue Boards & Powder Coated Repeater multiple catch mousetraps.

In 2011, J.T. Eaton was granted the certificate of registration by Canadian patent office for Little Pete Multiple Catch Mouse Trap. J.T. Eaton also received approval notification from the Arizona Department of Agriculture for the use of Bait Blocks with Peanut Butter for use in the control of packrats in 2011.

J.T. Eaton has recently included a new removable ramp feature into two of its best-selling multiple-catch mouse traps, the Repeater and the Little Pete, which allows the user to clean and place the ramp very quickly into the trap.

MARKETING POLICIES

J.T. Eaton's products are widely available in hardware, supermarket, drug, and discount stores. All products are sold by the company's approximately 15 manufacturers' representatives across the country. Its products may be found many retail stores and distributors like Ace Hardware, Amazon, Armchem, bedbugsupply.com, Bostwick-Braun Company, C&S, Chadwell Supply, Cleaning Stop, Commerce Corp, CostCo, Drug Mart, Do it Best, do-it-yourself pest control, domyownpestcontrol.com, Emery Waterhouse, Farmer Boy AG, Lancaster, Florida Hardware, Garinger, Handy Hardware, HD Supply, Horizontal Distribution, House-Hasson, Incom, Koffler Sales Company, Meijer, Menards, Monroe Hardware, MSC, Orgill, Pacoa, RVW, Reiss, The Pest Depot, True Value, VSI, Walgreens, and Wilmar. In 2007, in honor of the company's 75th anniversary, J.T. Eaton made several large donations to various charitable organizations including Habitat for Humanity.

In 2010, J.T. Eaton donated several cases of J.T. Eaton Kills Bedbugs and Crawling Insects powder, the Webster Cobweb Duster, Stick-Em Rat & Mouse Glue Traps, Stick-A-Fly fly traps, and the Jawz mouse- and rat-sized plastic snap traps to the Heber Valley Camp in Utah.

In April 2011, J.T. Eaton donated Dr. Moss Liquid bait stations to pest management professionals who donated any amount to the American Red Cross to help the Japan earthquake victims.

The company continues to offer holiday rebates and other promotions at many of its retail points-of-sale during the year to attract customers.

ADVERTISING

J.T. Eaton had no TME for 2010 or 2011. The company advertised cooperatively with its retail outlets.

FACILITIES

J.T. Eaton is headquartered in Twinsburg, OH, and employs approximately 30 people. The company has spent a lot of capital in upgrading production practices here in the last 10 years. Manufacturing and distribution facilities are also located at the Twinsburg location.

OUTLOOK

In the backdrop of relatively stronger economic conditions than in 2009 and a good season, J.T. Eaton experienced higher sales in 2011. However, the company expects its new chipmunk bait stations, for example, to be a "huge seller," and sales of its new bedbug spray will remain strong. These new products will drive growth in the rodenticide and insecticide categories, respectively, while established lines such as mechanical devices and repellents will support further, albeit lower, gains.

Through the forecast period, overall sales for the company of consumer chemical products formulated as rodenticides, repellents, and insecticides will expand by 5.3% per year.

Table 9-45: J.T. Eaton's Outlook for Pesticides, 2011 to 2016

	$ Thousand		
Product category	**2011**	**2016**	**Average annual growth, %**
Mechanical devices	4,400	5,888	6.0
Rodenticides	3,080	3,931	5.0
Insecticides	880	1,071	4.0
Repellents	440	510	3.0
Total	**8,800**	**11,400**	**5.3**

LAMPLIGHT FARMS

OVERVIEW

Lamplight Farms is a privately held company founded in 1964 by Donald and Rosemary Tendick. At its beginnings, the company pioneered the development of a liquid fuel specially formulated to burn in oil lamps without producing the smoke and odor associated with kerosene. Mr. Tendick developed a formulation of two oils that not only burned without producing smoke, but also had the delightful scents of peppermint and bayberry. Recognizing the appeal of such fuel, the Tendicks decided to market the new discovery to antique stores. With initial success, the company soon broadened its product line to include outdoor lighting products. The company grew into a major retail supplier of lamps, lamp oils, and candles for indoor and outdoor use.

In 1998, the Tendicks sold Lamplight Industries to the W.C. Bradley Company of Columbus, GA. The W.C. Bradley Company is also the parent company for Char-Broil Grills, Thermos Grills, New Braunfels Smoker Company, and Zebco fishing gear. The company's Char-Broil Division is one of the world's leading producers of outdoor barbecue gas and electric grills. Each of W.C. Bradley's companies operates as a separate business. In 2001, Lamplight Farms acquired a major competitor in the outdoor lighting business, the Tiki brands. Under Bradley, Lamplight Farms has become a leading producer of indoor lamps and oil, scented indoor candles, and decorative outdoor natural flame products. These products are marketed under the Lamplight and Tiki brands. Lamplight also sells home fragrance products under the AromaGlow Brand, their brand other than Tiki and Lamplight.

In recent years, the Lamplight Farms and Char-Broil Divisions have come under increased cost pressure from foreign competitors. The parent company, W.C. Bradley, decided to move production to China in 2004 and 2005. This had a significant impact on Lamplight Farms employees, with a reduction of approximately 70 manufacturing jobs.

A key development following the move was the recall of several models of Tiki brand outdoor lamps. The first recall was in July 2005, for 350,000 TIKI Cone Medal Torches. This particular recall allowed purchasers a full refund of $9.00 for a total impact on the company of $3.2 million. The following month another recall was announced for nearly 1 million Tiki brand bamboo torches. This recall required the company to provide a special metal plate to prevent the torch housing from catching fire. It is estimated that this recall will cost the company an additional $1 million. Recently, in September 2011, Lamplight farms voluntarily recalled about 200,000 units of its Tiki brand gel fuel bottles and jugs due to the potential fire and burn hazard. The company has initiated many product recalls in the United States and abroad in the past few years.

SALES AND PROFITS

W.C. Bradley is a privately held company and does not release financial information. Sales of the Lamplight Farms subsidiary are estimated at about $75 million in 2011.

CONSUMER PESTICIDES AND FERTILIZERS

Lamplight Farms markets citronella-based candles, torches, torch fuel, and lamp oils for outdoor pest control. These are the company's only pest control offerings. Its citronella line is estimated to account for 40% of Lamplight Farm's sales in 2011, or around $30 million.

Citronella oil is a volatile oil obtained from the leaves and stem of the plant *Cymbopogon winteratus* or *Cymbopogon nardus*. The oil contains approximately 30% citronella and 40% geraniol. It is a volatile essential oil, and its fumes are a potent insect repellent.

MARKETING POLICIES

Lamplight Farms' products are sold through major U.S. retailers including Walmart, The Home Depot, Lowe's, K-Mart, Target, Menard's, Walgreens, Ace Hardware, True Value, and a variety of other North American major retailers. The company also sells online, through catalogs, and in its own retail store. The company's sales effort includes a nationwide network of 16 manufacturers' representative organizations and a small internal sales staff to handle catalog and online sales. Two national account managers oversee sales to the large superstore outlets, and two field sales managers' work with the network of manufacturers' representatives.

A marketing manager located at the company headquarters in Menomonee Falls, WI, handles all marketing activities. The national account managers and field sales managers are also located in Menomonee Falls. The company sells its citronella products under the Tiki trade name, but also produces private-label products for others. Lamplight Farms employs about 70 people, about half the people it had in previous years, due to the downsizing and production moves to China.

ADVERTISING

Lamplight Farms had no TME for 2010 or 2011. A company spokesman states that its advertising budget is focused on in-store displays and some print advertising.

FACILITIES

Lamplight Farms maintains a manufacturing and distribution center in Menomonee Falls, WI, but the bulk of the manufacturing is now performed in southern China.

OUTLOOK

In the past, citronella sales have closely tracked growth in U.S. retail sales. The business is seasonal and use varies widely across the United States and tends to peak in regions where new housing construction starts are strong. Due to the recession in the U.S. housing industry in the last two years, citronella sales have decreased.

Looking forward future growth for Lamplight Farms' citronella-based products will be tempered by certain trends. The product line is mature and with no new product introductions and strong competition from effective alternative products the indications are that growth may be slow over the next five years. On the positive side, the Chinese-based production should be able to keep the products in an effective price position.

Lamplight Farms' sales of citronella-based insect repellents are projected to grow 3.0% per year, reaching $34.8 million in 2016.

Table 9-46: Lamplight Farm's Outlook for Insect Repellents, 2011 to 2016

Year	$ Thousand	Average annual growth, %
2011	30,000	-
2016	34,780	3.0

LEBANON SEABOARD CORPORATION

OVERVIEW

Lebanon Seaboard Corporation of Lebanon, PA, is a supplier of lawn and garden products, wild bird food, and professional turf pesticides and fertilizers. The company was founded in 1947 and grew by acquisition of two spin-offs from the Williams Companies in 1973 and Eli Lilly in 1974. Later, Lebanon acquired several agricultural assets: Kerr-McGee in 1978; Tidewater Agricorp (Chesapeake, VA), a manufacturer of agricultural fertilizers and pesticides, in 1986; certain assets from Royster Agri Products and Draft Plant Food in 1987; and the fertilizer plants and associated equipment of the William B. Tilghman Company in 1989. In 1998, the company sold its Lebanon Agricorp Division to Royster-Clark Inc. to focus on its consumer and professional markets.

In 1993, Lebanon acquired Seaboard Seed Company and Stanford Seed Company, suppliers of retail and professional grass seed and wild and pet birdseed. Penn Turf Products was purchased in 1998, along with the Professional Lawn Care Division of Pursell Industries. Pursell's Parex brand was added to Lebanon's stable of golf course products. Lebanon also obtained the rights to enhanced methylene urea technology in 1998. In 1998, the company decided to divest from the Farm Division and focus entirely on the professional turf and consumer lawn and garden markets.

Lebanon Seaboard is a single-source producer of lawn and garden supplies, wild bird seed, and professional turf and horticultural products. It now operates six production facilities and employs more than 300 people.

In 2008, the company acquired Emerald Isle line of foliar and granular fertilizer products from Milliken Chemical, a division of Milliken & Co.

In 2009, Lebanon Seaboard acquired the turf and landscape business from Novozymes. The business includes the Roots Turf brand of organic-based granular fertilizers, along with other unique nutritional complements.

In January 2011, Lebanon Seaboard acquired the horticulture and turf division of Plant Health Care, Inc. This acquisition was done in order to increase the product range of Lebanon Seaboard in the golf course and landscape professional market.

SALES AND PROFITS

Lebanon Seaboard is a privately held company and does not release financial information. Company sales are estimated at $315 million in 2011.

Lebanon Seaboard markets pesticides and fertilizers through two divisions: Professional Turf Products and Consumer Products. The Professional Turf Products division accounts for 60% of the business, and the remaining 40% is for the Consumer Products division. The Consumer Products division accounts for an estimated $126 million in 2011. The Consumer Products division sells fertilizer and pesticide products estimated at $115 million, the remainder of the approximately $11 million comes from sales of grass seed, mulch, wild bird food, and biologicals.

CONSUMER PESTICIDES AND FERTILIZERS

The Consumer Products division sells branded and private-label lawn and garden pesticides, fertilizers, grass seed, and mulch for the do-it-yourself market, as well as wild bird food. Private-label products are manufactured for retail chains, including Ace Hardware and online stores.

Lebanon Seaboard is good at creating cutting-edge technology and innovative packaging for the consumer. In early 2005, the company launched a new online service (www.greenviewonline.com) that provides homeowners with a professional approach to lawn care. The company updates the site frequently with expert advice and technology developed in its Professional Turf Products division. The website also contains a weblog for up-to-date information on when and what to apply, comparisons with other fertilizer products, and a program to have seed, fertilizer, and herbicides delivered to your home at the right time for application. They also have a similar interactive website, www.preen.com, for their other brand.

Fertilizer and pesticide lines are marketed under the Greenview and Preen labels. The Preen line is a basic line of weed control products for consumer lawns and gardens. The herbicides used in the Preen line are largely based on trifluralin. The Greenview line offers a more professional line of fertilizer products for the homeowner adapted from the Professional Turf Products Division. The Preen line of products is mostly distributed by large mass merchandisers while the Greenview line is marketed more through specialty garden centers.

Total sales of consumer pesticides and fertilizers for Lebanon Seaboard are estimated at $115 million in 2011, with branded products representing 75%, and third party or private-label products accounting for the remaining 25%.

Table 9-47: Lebanon Seaboard's Sales of Pesticides and Fertilizers for Branded and Private Label, 2011		
Product category	**$ Thousand**	**% Of total**
Branded products	86,250	75
Private label	28,750	25
Total	**115,000**	**100**

U.S. consumer sales for branded products are estimated at nearly $86.25 million in 2011, with herbicides roughly a split of 50/50 between fertilizers and herbicide.

Table 9-48: Lebanon Seaboard's Estimated U.S. Sales of Pesticides and Related Products To Consumer Markets by Product Category, 2011		
Product category	**$ Thousand**	**% Of total**
FERTILIZERS		
Garden	25,875	30
Lawn	18,113	21
Total	43,988	51
HERBICIDES	42,262	49
TOTAL	**86,250**	**100**

MARKETING POLICIES

Lebanon Seaboard sells about 70% of its products through distributors and about 30% directly on a national basis, , Kmart, Walmart, Lowe's, Home Depot, and Agway, with sales strongest in the Midwest, Northeast, and Mid-Atlantic states. The sales force includes 20 sales representatives; one account manager is located in California, and the remainder in the Midwest, Northeast, and Mid-Atlantic regions.

ADVERTISING

Lebanon Seaboard does a substantial amount of advertising to support its lawn and garden pesticides and fertilizers. In 2010, TME totaled $3.7 million, primarily focused on the Preen Weed Preventer product, with a small amount to support the other Preen products and the Greenview brand. The majority of the advertising for Preen Weed Preventer was on Network Television, which accounted for $2.3 million. Other advertisements were placed on Cable TV, Magazines and Spot TV. Preen fertilizer & weed control were advertised on U.S. Internet displays, and Greenview advertisements appeared in newspapers. TME deceases in 2011 to $3.5 million, with the majority of advertising once again focusing on the Preen Weed Preventer product. The product was mostly advertised on Network TV, with accounted for $2.1 million, and other adverts were featured on Cable TV and Spot TV.

Table 9-49: Lebanon Seaboard's Advertising Expenditures, 2010 to 2011	
Year/brand	**$ Thousand**
2010	
Preen Weed Preventer	3,689.7
Greenview Fertilizer & Treatments	10.4
Preen Fertilizer & Weed Control	8.5
Preen & Preen N Green Weed Preventer:Combo	-
Total	3,708.6
2011	
Preen Weed Preventer	3,041.4
GreenSmart Fertilizers & Treatments	221.2
Preen Fertilizer & Weed Control	112.2
Greenview Fertilizer	82.0
Preen Garden Weed Preventer	63.3
Total	3,520.1

FACILITIES

Lebanon Seaboard has its headquarters in Lebanon, PA. Products are produced in six production facilities in Arcade and Binghamton, NY, Bristol, IL, Danville, IL, and Denver and Lebanon, PA. The company has distribution centers in Lebanon, PA, and Danville, IL. Lebanon Seaboard employs more than 300 people.

OUTLOOK

Lebanon Seaboard is focused on its consumer and professional turf markets. Though the acquisitions in the last two years have helped them to grow in the professional market, at the same time the consumer market sales have been flat because of the recession. However, the company continues to leverage its professional expertise into the consumer market and it is expected that this will help to grow the consumer business. In addition, the company's Web-based approach to education of the consumer is expected to pay dividends in the future. Overall, future sales of U.S. consumer pesticides and fertilizers are expected to grow at 3.0% per year to reach $100.5 million by 2016.

Table 9-50: Lebanon Seaboard's Outlook for Pesticides and Fertilizers, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	86.3	-
2016	100.5	3.0

MERIAL

OVERVIEW

Headquartered in London, England, Merial Ltd. was started by Merck & Company and Sanofi-Aventis in 1997 as a standalone venture owned equally by each party. In July 2009, Sanofi-Aventis agreed to buy Merck & Co.'s half of the Merial animal-health venture for $4 billion. Merck sold its animal-health assets after the regulators said its purchase of Schering-Plough would make it too dominant in the market.

Sanofi had an option to combine Merial with the Intervet/Schering-Plough animal health business to form a new animal heath venture, owned equally between the "new" Merck and Sanofi-Aventis. However, Sanofi recognized the value of having Merial on a separate line.

In March 2011, Merck and Sanofi-Aventis announced the mutual termination of their agreement to form a new animal health joint venture by combining Merial with Intervet/Schering-Plough. Hence, each party will continue to operate independently with separate animal health businesses.

Merial is now the world's leading animal health company, with more than €2.0 billion, or $2.63 billion (an exchange rate of €1.00 = $1.2959) in sales of veterinary pharmaceuticals and vaccines used to prevent and treat diseases in livestock, poultry, and companion animals in 2011, operating in more than 150 countries worldwide. In 2003, Merial opened a new North American headquarters in Duluth, GA. North America is an important market for Merial, accounting for approximately half of its global sales of animal health products.

Merial continues to expand through both organic growth and acquisitions. In October 2007, the company acquired Ancare, a New Zealand-based animal health products company specializing in production animal parasiticides.

Merial has recently announced establishing of its global business headquarters at Gerland, Lyon in France. The company's global R&D and U.S. commercial operations will remain at Duluth, GA.

SALES AND PROFITS

Merck & Co.

Merck & Co. reported corporate sales of nearly $48.0 billion in 2011, representing an increase of 4.48% over 2010 sales of about $46.0 billion. Net income from operations was $6.4 billion up from $982 million the prior year.

Table 9-51: Merck & Co.'s Corporate Sales, 2000 to 2011

	$ Million	
Year	**Sales**	**Net income**
2000	40,363	6,822
2001	47,716	7,282
2002	21,445	6,794
2003	22,485	6,875
2004	22,939	5,830
2005	22,011	4,631
2006	22,636	4,433
2007	24,197	3,275
2008	23,850	7,808
2009	27,428	13,024
2010	45,987-a	982
2011	48,047-a	6,392

a- Includes sales of Schering Plough.

Sanofi-Aventis

In April 2004, after a bitter takeover battle, Aventis SA was purchased by its smaller rival, Sanofi-Synthelabo SA for about $65 billion, and the merged company became known as Sanofi-Aventis. Sanofi-Aventis now owns 100% equity interest in Merial.

Sanofi-Aventis reported net sales for 2011 of about €31.4 billion, or $40.7 billion, an increase of 3.2% over 2010 sales of €30.4 billion, or $ 39.4 billion (adjusted to a comparable basis).

Table 9-52: Sanofi-Aventis' Corporate Sales, 2011		
Business segment	**€ Million-a**	**% Of total**
Pharmaceutical	27,890	88.9
Vaccines	3,469	11.1
Total	**31,359**	**100.0**

a- Exchange rate: €1.00 = $1.2959.

With all 2011 totals adjusted to reflect a comparable basis, the company reported operating income of €8.1 billion, or $10.5 billion for 2011, a decrease of 8.6% over the prior year.

Merial

Merial's worldwide sales were approximately €2.0 billion, or $2.6 billion in 2011, a 23% decrease over 2010. Sales of fipronil-based products (Frontline and Frontline Plus) were $764 million, a 25.6% decrease over 2010. Decline in sales in Fipronil products was a result of a lower household consumption in the companion animal healthcare market and an increasingly competitive environment in the United States. The net sales of Frontline and related products in the United States are €411 million, or $532 million, or approximately 70.0% of the worldwide total. Fipronil-based products account for about 38% of the company's sales in 2011.

Table 9-53: Merial's Sales by Product Type, 2011			
	€ Million		
Product	**2011**	**2010**	**Change, %**
Fipronil-based products	764	1,027	(25.6)
Vaccines	662	837	(20.9)
Avermectin	372	473	(21.4)
Other	232	298	(22.1)
Total	**2,030**	**2,635**	**(23.0)**

CONSUMER PESTICIDES AND FERTILIZERS

Merial's sales of consumer pesticides under its own label in 2011 are attributable to Frontline, a veterinarian-dispensed topical flea and tick control insecticide for dogs and cats based on the active ingredient fipronil, and Frontline Plus, a combination of fipronil and (S)-methoprene, a second-generation flea and tick treatment. The line has become, according to Merial, the "Vet's #1 choice for long-lasting flea and tick protection." Frontline has recently been named as the highest selling veterinary product in the world by Vetnosis.

Frontline was launched in 1996 by Rhone-Merieux prior to the formation of Merial. It is available in two formulations: original Frontline, and Frontline Top Spot, launched in 1997. Frontline Top Spot is a spot-on product applied to the back and shoulders of dogs and cats, while Frontline spray is a liquid on-animal spray available in a 250 ml bottle. Both products are available only through veterinarians, controlling fleas and ticks on dogs and cats for one month.

Frontline Plus, introduced into the North American market in 2001, contains both fipronil and methoprene and offers protection against all flea life stages for cats and dogs. It is available only as a spot-on formulation from veterinarians. In June 2005, Merial announced the production of the one billionth pipette of Frontline, which at that time, had been used on nearly 200 million pets in more than 100 countries.

Frontline Plus and Frontline Top Spot are available in both 3-dose and 6-dose packages for cats and kittens, dogs up to 22 lb; dogs 23 to 44 lb, dogs 45 to 88 lb, and dogs 89 to 132 lb.

MARKETING POLICIES

Merial uses its own sales force to sell its pet insecticides, including Frontline, along with its wide range of other veterinary pharmaceuticals, directly to veterinary clinics and to a nationwide network of distributors. Merial also has a website (www.frontline.com) that offers product and technical information and interactive tools. It is also offering special coupons on its website, which allows the consumer to get one additional frontline product on purchasing six doses of Frontline Plus or Top Spot.

ADVERTISING

In 2010, Merial had advertising to support the Frontline brand totaling $30.1 million, split fairly evenly between a number of media courses. In 2011, advertising spending dropped to $25.9 million, with magazines being the largest expenditures.

Table 9-54: Merial's Advertising Expenditures 2010-2011		
	$ Million	
Media type	2010	2011
Network TV	5,151.0	4,420.6
Cable TV	3,178.8	3,259.6
Syndicated TV	5,115.8	5,286.8
Spot TV	5,317.6	3,250.7
Magazines	8,722.4	8,560.0
Newspapers	1,977.4	-
U.S. Internet	559.6	1,075.2
Total	**30,071.5**	**25,852.9**

FACILITIES

Merial is headquartered in London, England. In 2003, it opened a new North American headquarters in Duluth, GA, with a professional staff of 400. The company operates several facilities throughout the world, employing more than 5,700 people in 150 countries. Merial has 16 manufacturing sites and produces 100 million pipettes of Frontline annually. There are eight research and development centers worldwide, and technical and regulatory requirements are met by a staff of more than 1,700. In May 2007, Merial divested its St. Louis pharmaceutical blending facility to Huvepharma; the factory mainly produced anticoccidials for use in poultry. Merial's U.K. operations came under investigation later in the year, after a strain of foot-and-mouth disease was found at a farm in Surrey, England. However, no biosecurity breaches were found at the facility.

Some pharmaceutical products like Heartgard and Eprinex are subcontracted, but almost all veterinary vaccines are manufactured at its own plants.

OUTLOOK

Merial's Frontline has demonstrated significant growth over the past several years, capturing market share from other products to become the premier flea and tick spot-on medication in the United States.

The compound patent for Fipronil, the active ingredient of Frontline, has expired in 2009 in Japan and in some European countries, including France, Germany, Italy, and the United Kingdom, and in August 2010 in the United States. Hence, Frontline products are likely to witness a decline in these regions. However, Frontline products are still protected through formulation patents which expire in 2017 in Europe and August 2016 in the United States. But the decline in the sales of Frontline products over the past few years can be attributed to the upcoming substitutes of Fipronil-based products. Also, with the declining market for animal healthcare market and lower household consumption for pet products, the sales have declined in the last year.

With the speculation of economic recovery in the next few years, there will be an increase in the number of households owning pets and higher per capita spending on pet care products. This trend is expected to continue, resulting in an annual increase of 5.0% per year for Frontline.

Table 9-55: Merial's Outlook for Pesticides, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	532.0	-
2016	679.0	5.0

MONTEREY LAWN AND GARDEN PRODUCTS

OVERVIEW

Based in Fresno, CA, Monterey Lawn and Garden Products, Inc. is an employee-owned distributor of plant protection chemicals and fertilizers. Its products are designed to fill niche markets with economical but effective solutions for yard and garden problems.

Monterey offers approximately five dozen different items to retail nurseries and garden centers, with 17 new product launches in the past two years. Most of these products are professional-grade agricultural and horticultural materials and are registered and labeled for sale to the home gardener. This line includes both traditional pesticide products as well as organic products in the insecticide, herbicide, fungicide, molluscicide, growth regulator, and fertilizer categories.

In December 2009, Monterey AgResources was acquired by Brandt Consolidated, Inc. The acquisition of Monterey AgResources was a part of Brandt's aggressive corporate strategy providing better product portfolio, production and warehousing for customers throughout North America and around the world.

SALES AND PROFITS

Monterey AgResources, acquired by Brandt, is a privately held company and releases limited financial information. Corporate sales in 2011 are estimated at $65 million. Almost all the company's entire sales are through brokers and distributors and a minuscule amount of the company's sales are directly to retail and online. Sales are mainly through garden centers and hardware stores in the western states including Armstrong Garden Centers, Green Thumb, Sloat Garden Centers, Ace Hardware, Orchard Supply Hardware, and True Value. All of Monterey's products are sold under its own brand names.

Monterey AgResources has a packaging division and the company produces and packages private-label products for other companies as well. Private-label products account for about 15% of the total sales for its products. About 85% of the total sales are of the company branded products.

Table 9-56: Monterey AgResources' Sales for Branded and Private-label Products, 2011		
Product category	**$ Million**	**% Of total**
Branded products	55.2	85
Private label	9.8	15
Total	**65.0**	**100**

Monterey Lawn and Garden is a consumer products subsidiary of Monterey AgResources. Of all the company sales, the Lawn and Garden subsidiary accounts for around $13 million, or 20% of the overall business and the Turf and Ornamental subsidiary accounts for 10% of the company's overall business. The agricultural products division accounts of about 70% of the company's overall sales in 2011.

Table 9-57: Monterrey Lawn and Garden's Sales by Business Division, 2011		
Business division	**$ Million**	**% Of total**
Agricultural Products	45.5	70
Lawn and Garden	13.0	20
Turf and Ornamental	6.5	10
Total	**65.0**	**100**

CONSUMER PESTICIDES AND FERTILIZERS

Monterey Lawn and Garden markets a broad range of organic and chemical products for lawn and garden use, including lawn and garden adjuvants, fertilizers, fungicides, herbicides, growth regulators, insecticides, molluscicides, rodent traps, and soil enhancers. One of its popular products is Sluggo, a snail-and-slug eliminator that is available in five sizes. These include bottles of 1 lb, 2.5 lb, 5 lb and 10 lb that can treat areas of land to 2,500 sq ft. For landscapes up to 10,000 sq ft, 10 lb bags are available. Sluggo Plus is now OMRI (Organic Materials Review Institute) listed for use in organic gardening. Another key product is Weed Impede, a weed killer for flowerbeds. While most of the company's products are for outdoor use, it also offers three indoor pesticides and an indoor/outdoor fertilizer.

Recent new additions to the company's product line include Vegetable Garden Soil Insecticide, Mole Cricket-Chinch Bug Lawn Spray, Dr. Iron Liquid and RTU spray, Crab-E-Rad, Florel, Spider Traps, Monterey Neem Oil, Agri-Fos Systemic Fungicide with Pentra-Bark, All Natural Insect Spray range, Bi-Carb Old Fashioned Fungicide, Citrus Leafminer Trap & Lure, Epsom Salts, Fish & Poop, Foli-Cal, Fruit Tree Vegetable & Ornamental Fungicide, Go-Die Gopher Bait, Grass Getter, Green Tree Pro Nutriboosters, Herbicidal Soap, Herbicide Helper, Indoor Fly Traps, Kaput® Mole Gel Bait, Kudzu Killer, Liqui-Cop, Monterey Once a Year Insect Control, Mark-It Blue, Monterey Garden Insect Spray, M-20, Monterey Perc-O-Late Plus, Nature's Own Spray Helper, No Cat Zone, No Foam, Remuda Full Strength, Saf-T-Side, Sequestar Iron 6%, Sluggo range, Spurge Power, Spray Tank Cleaner, Sucker Stopper RTU, Take Down Garden Spray, Turflon™ Ester, Weed Whacker, Weed Whacker Jet Spray, Weed Impede range etc. The company has discontinued No Deer Zone, No Goose Zone, Monterey Fungi Fighter, Hasta La Vista, Ant Gel, Bug Buster, Vole Whacker, Odor Eliminator RTU, Deluxe Tree Borer Moth Trap and Lure, Olive Fruit Fly Trap and Lure, Yellow Sticky Traps, Lady Bug Attractant, Honey Bee Attractant, Codling Moth Trap & Lure since 2009, these bring Monterey's total line to approximately 40 items.

In 2011, herbicides accounts for the largest portion of the company's sales, each with \$3.3 million, or 25% of the total. Insecticides followed with \$2.6 million and 20% of the total consumer pesticide sales. Fungicides and other specialty products comprised 55% with \$7.1 million.

Table 9-58: Monterey Lawn and Garden's Sales of Consumer Pesticides, 2011

Product type	$ Million	% Of total
Herbicides	3.3	25
Insecticides/IGR	2.6	20
Fungicides	2.6	20
Others-a	4.5	35
Total	**13.0**	**100**

a- Include adjuvants, molluscicides, fertilizers, etc.

MARKETING POLICIES

Monterey's lawn and garden products are marketed through more than 50 distributors across the United States. These distributors serve independent retailers and garden centers as well as industry professionals such as landscapers, marketing locally to lawn and garden shops. Direct purchase is also available through the company's website, www.montereylawnandgarden.com, for those not able to purchase locally, but who live in states in which Monterey is registered. While products are available throughout the United States, most retail sites selling Monterey Lawn and Garden products are located in California, Oregon, Washington, and other Northwest states.

ADVERTISING

Monterey had no TME for 2010 or 2011, but has previously stated that it spends about 10% of its sales on promotion, placing advertisements in trade and consumer magazines. It also runs ads on radio shows with lawn and garden themes in Oregon, California, and Washington. Monterey uses direct mail, on a limited basis, to promote to new customers. Mailers often include special time-sensitive coupons and discounts.

FACILITIES

Most Monterey Lawn and Garden products are manufactured at MCC, in Fresno, CA. In-house staff handles regulatory and labeling requirements in select markets nationwide. Front office, sales support as well as warehousing staff are also located in Fresno, CA. The company's lawn and garden group employs 25 people, many of whom have years of service with the company. The sales team comprises seven different territory managers around the United States who manage the distributors in the assigned regions. The distributors, in turn, have representatives who sell the company's products to the small retailers and big stores. There is a customer service division that provides the product information and manages online sales as well. The overall sales team has 15 members.

OUTLOOK

Over the next several years, ongoing new product introductions will support moderate growth for Monterey Lawn and Garden. Although the company remains focused in the Western states with fairly saturated distribution in California, innovative new launches such as Vole Whacker, No Cat Zone, and Monterey Fungi Fighter will drive sales gains. Through 2016, total sales are expected to expand by 5% per year, reaching $14.9 million.

Table 9-59: Monterey Lawn and Garden's Outlook for Pesticides, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	13.0	-
2016	16.6	5.0

MOTOMCO

OVERVIEW

Based in Madison, WI, Motomco Ltd. manufactures advanced rodent control products for agricultural and consumer markets. The organization is a division of Bell Laboratories, Inc., a privately held rodent control product manufacturer which is not affiliated with the technology group spun off from telecommunications giant AT&T with the same name. As one of the world's largest producer of rodenticides, Motomco offers several brands including: Rampage, Jaguar, Eraze, Hawk, and Tomcat. Mostly, Tomcat line is sold to the retail segment. The company began as a regional supplier of rodent control products in the Midwest and has expanded nationally since its 2001 launch of Tomcat brand products into mass merchandisers.

Motomco's high quality products are used in agricultural systems to control rats and mice on swine, poultry, beef and other livestock operations, gophers, ground squirrels, moles, voles, rats, mice, and other pests in orchards and on cropland. The company also offers turnkey services including inspection of customer facilities, identification of pests, sanitation and rodent-proofing, strategies for rodent control, and solutions for interior and exterior baiting.

SALES AND PROFITS

Motomco's total sales are estimated at $40.6 million in 2011. Approximately 80% of sales, or $32.5 million, are from rodenticide products. Non-bait products including bait stations, nonpoisonous glue traps, and mechanical traps make up the remaining $6 million. In 2011, approximately 40% of rodenticide sales, or $13 million, were in integrator/producer markets and 60% of rodenticide sales, or $19.5 million were in consumer markets. About 80% of the sales in the consumer market are attributed to Tomcat brand of Motomco and the rest 20% to other brands like Rampage, Jaguar, and Hawk.

The company's seven territory managers are overseen by a sales director and supported by a customer service team. This internal team is responsible for about 30% of total company sales, with the remaining 70% derived from manufacturers' representatives. About three-fourth of total sales are made directly to retailers.

CONSUMER PESTICIDES AND FERTILIZERS

Motomco is a leader in rodent control technology. It supplies a broad range of rodent control products, including rat and mouse baits in pellet and block form, nonpoisonous glue boards and glue traps, tamper-resistant bait stations that keep bait away from children and pets, and mechanical mousetraps, snap traps, and multiple catch traps. Motomco was the first company to offer a weatherable block bait formulation, which is manufactured by an extrusion process that ensures uniform distribution of the active ingredient throughout the block. It also offers systems that combine several products and methods of rodent control. These include combinations of bait, glue boards, mechanical and adhesive traps, and bait stations. Additionally, the powerful Hawk, Jaguar, and Rampage baits work together in a year-round bait rotation program called Motomco's Rodent Control System to rid areas of rats and mice and to keep intruders at a manageable level. The program is designed to work well in even the toughest circumstances, both indoors and outdoors.

Motomco baits are manufactured in two formulations—extruded Chunx and pellets. Chunx baits are superior in both weatherability and flavor and work well both indoors and out. However, pelleted baits are a better choice in moist conditions, both indoors and outside. The baits are made with 16 to 20 human food-grade ingredients to compliment food in the rodent's environment, in addition to Motomco's own active ingredients.

The Tomcat line offers a range of consumer products that encompass rodent baits, bait stations, mechanical and adhesive traps, and rodent control kits. Tomcat baits are mainly multiple-feeding and contain the anticoagulant diphacinone. This can kill rats and mice within four to six days. Rodent baits include Tomcat mole and gopher baits, Tomcat Ultra, and Tomcat Quickstrike, which are sold in mass retailers, home centers, and hardware, drug, grocery, and lawn and garden stores. Tomcat Quickstrike (bromethalin) is sold as granules in RTU place packs. Tomcat Ultra (bromadiolone) is sold as granules available in place packs and feeder boxes, bait blocks, and a prebaited station. Tomcat Liquid Concentrate mixes with one quart of water for extensive feeding sites. The line also includes mechanical mouse trips and liquid mouse attractant, ground squirrel baits, adhesive traps in different sizes for rats and mice, and household pest glue boards and glue traps. Bait stations include the Tomcat Rodent Station, Tomcat Rat Bait Station, and Tomcat Mouse Bait Station. These help to keep baits away from children, pets and other animals and yet help rodents feel secure feeding inside. These lock automatically when they are closed and can be easily opened with an easy-access key when required. Bait stations are available in different sizes to accommodate mice or both rat and mice.

Brands sold through farm supply stores include Jaguar (brodifacoum), Hawk (bromadiolone), Rampage (bromethalin), and Tomcat (diphacinone). Rampage is a fast acting acute bait that works within 24 hours, although less bait can be used to kill a larger number of rodents. Jaguar is strong anticoagulant bait that kills new or remaining rodents in a single feeding. While it is quite effective for rats and mice, it is also an excellent option on hard to control mouse populations—2 grams is sufficient to kill a rat while just 0.2 grams can kill a mouse. Hawk contains .005% bromadialone that can kill warfarin-resistant rats in a single feeding. This can be used as maintenance bait once rats have been reduced in a target area.

All four Motomco brands are available in granular pellet RTU place packs and bait block formulations. In addition, Motomco sells zinc phosphide bait pellets under the brand names Eraze, Rodenticide AG, and Mole & Gopher Bait.

In 2007, Motomco introduced new Motomco Mole Killer grub shape, building on the Motomco Mole Killer worm shape it launched in early 2006. Both contain the same active ingredient (bromethalin), but the worm formula is shaped like a worm, while the lower priced grub formula is smaller and grub-shaped. Motomco is one of the few companies that offers highly effective mole killers, having extensively studied the diet and behavior of moles.

In 2008, the company introduced a mechanical mole trap for moles underground. Later in 2009, Motomco introduced Agrid3 rodenticide for use in organic production. It kills anticoagulant-resistant rats and mice, yet substantially reduces the risk of secondary poisoning.

The recently launched professional vitamin D3 bait product of Motomco named Agrid$_3$ has received an Organic Materials Review Institute (OMRI) Listing for use in organic operations. The product can easily find applications in food processing, warehousing and animal production, as well as use in and around agricultural buildings, such as cattle, poultry, swine, and dairy facilities.

MARKETING POLICIES

Motomco offers a range of products for producers, store retailers and homeowners. To cater to its diverse class of customers, Motomco sells its products through mass retailers, wholesalers, home centers, and hardware, drug, grocery, and lawn and garden stores. These include Target, Walmart, Lowe's, CVS, Eckerd, Food Lion, Publix, Kroger, and others. Motomco's products used to be available online at www.tomcatbrand.com or www.motomco.com but the firm has reportedly ceased the online sales operations. Independent websites including www.livestockconcepts.com, animart.com, and pbsanimalhealth.com also sell selected Motomco products.

Motomco promotes its products aggressively, attending trade shows with distributors to showcase its Hawk, Jaguar, and Rampage agricultural lines and running advertisements in selected trade publications. The company also offers volume-based distributor discounts.

Following a series of accidents of small kids consuming rat poison, Environment Protection Agency (EPA) presented RMD (Risk Mitigation Decision) in 2011 which is a set of new regulations intended to keep highly toxic second-generation rodenticides out of the hands of kids. The most significant impact of the RMD is the EPA's regulation to end access to any rodenticide containing a second generation active ingredient and any product that is sold in loose-bait form.

In response, Motomco has reassured its consumers that its Tomcat brand baits already meet the EPA's recommended standards.

Motomco has the sales staff of about 12 people comprising the sales director, seven territory sales managers and sales support staff. There is a separate customer service staff handling client queries about product information, discounts, servicing, and reporting of emergency. The majority of the sales for Motomco products happen in the Southern, Central, and West Central region of the United States.

ADVERTISING

Motomco did not have any TME for 2010 or 2011.

FACILITIES

Motomco Ltd. is headquartered in Madison, WI. This facility also contains its extensive product development, manufacturing and distribution operations. The company employs about 50 people, including a growing sales team. Motomco is the only "fully integrated" rodent control manufacturer in the United States, with complete research and development facilities, biological labs and state-of-the-art equipment to manufacture all of its products from start to finish. The company claims to manufacture its own active ingredients for the baits and have the proprietorship of the final formulations as well.

OUTLOOK

Motomco continues to expand, driven mainly by ongoing growth its agricultural business. Its Hawk, Jaguar and Rampage lines are bought widely by producers of poultry, dairy and swine, for which biosecurity is extremely important. These are virtually recession-proof industries which rely upon high product quality.

The Tomcat line is sold to both agricultural and retail customers. In the past, retail sales have increased with rising distribution through mass merchandisers and a protracted expansion of the U.S. housing market in rural areas. A housing slowdown may constrain this growth somewhat, as fewer housing starts will result in reduced demand from this sector. In 2008-09, U.S. housing fell to 50 year low, the greatest decline since the recession year of 1980 and the third largest drop since the Census Bureau started tracking this activity in 1959. Because new homes are typically built on newly developed land, rodent problems tend to be more prevalent than in existing homes. Nonetheless, rodents remain troublesome in existing homes, both rural and urban, causing more than $1 billion in damage each year. The large base of more than 60 million existing homes will therefore continue to support growth. Through 2016, Motomco's sales of consumer products are expected to expand by 7.0%, reaching $27.3 million at the end of the forecast period.

Table 9-60: Motomco's Outlook for Rodenticides, 2011 to 2016		
Year	**$ Million**	**Average annual growth, %**
2011	19.5	-
2016	27.3	7.0

NOVARTIS AG

OVERVIEW

Novartis AG of Basel, Switzerland, was formed in the year 1996 by the merger of two Swiss companies: Ciba-Geigy and Sandoz. Its core businesses are in pharmaceuticals, consumer health, eye-care, and animal health. Operating through 360 independent affiliates in 140 countries, Novartis offers its products through four main divisions: Pharmaceuticals, Sandoz, Vaccines and Diagnostics, and Consumer Health. Business units that make up the Consumer Health division include Over the Counter (OTC), Animal Health, and Ciba Vision. Novartis has recently divested its Medical Nutrition and Gerber businesses to Nestlé so it can focus more fully on its core businesses of health care pharmaceuticals. The Animal Health business segment includes Farm Animal Health, Companion Animal Health, and Aqua Health/Vaccines.

The Consumer Health division accounted for almost 8% of Novartis group's net sales in 2011, while Pharmaceuticals comprised 56%, Alcon accounted for 17%, Sandoz generics accounted for 16%, and Vaccines and Diagnostics represented almost 3% of the group's net sales. Within the Consumer Health group, Europe emerged as the largest market, accounting for 42% of group net sales, while the United States contributed 32% and the rest of the world accounted for the remaining 26%.

Table 9-61: Novartis' Corporate Sales by Business Segment, 2011

Business segment	USD Billion	% Of total sales
Pharmaceuticals	32.5	56.0
Alcon	10.0	17.0
Sandoz	9.5	16.0
Consumer Health	4.6	8.0
Vaccines & Diagnostics	2.0	3.0
Total	**58.6**	**100.0**

SALES AND PROFITS

In 2011, group full-year net sales were up 16% to $58.6 billion on the business expansion and the Alcon acquisition. Group operating income increased by 14% to $15.9 billion, while net income from continuing operations decreased by 7% to $9.2 billion and earnings per share increased by 8% to $5.57 per share. Within the Consumer Health group, sales were flat at $4.6 billion in 2011, a growth of 6% as compared to 2010, and operating income fell 6.5% to $727 million in 2010 due to a temporary suspension of operations and a voluntary product recall at one of the sites in the United States. The company's sales of consumer pesticides as covered by this report are estimated at $116 million in 2011.

CONSUMER PRODUCTS

Novartis's sales of consumer pesticides under its own labels in 2009 consist primarily of the Program, Sentinel, and Capstar veterinary-dispensed medications for flea and tick control.

For flea and tick control, Novartis offers Acatak, Program, Sentinel, Capstar, and Prac-tic. Acatak is a ready-to-use pour-on formulation used for the control of the cattle tick *Boophilus spp*. It contains 25 g of fluazuron per liter. In certain cases, it may also help to reduce substantially multi-host tick populations. Acatak Duostar is also available as tick growth regulator and broad spectrum antiparasitic pour on for beef cattle.

Program, introduced in 1995, was the first flea-control medication sold exclusively by veterinarians. Based on the insect growth regulator (IGR) lufenuron, it is available in an oral tablet formulation for dogs and cats and a liquid suspension form for cats only. The majority of Program sales are related to usage on cats. In 1998, Novartis introduced Program six-month injectable, a novel single-dose protection for cats. Program Plus is offered as an oral tablet for the prevention of fleas, and for the concurrent prevention of heartworm disease and/or treatment of gastrointestinal nematodes such as hookworms, roundworms, and whipworms in dogs.

Sentinel, introduced in 1997, is available in pill form for dogs only. It combines Program and Interceptor (milbemycin oxime) Flavor-Tabs, the once-a-month heartworm and intestinal parasite-prevention medication, into one pill.

Capstar/Program is a tablet for oral administration to control adult fleas in cats and dogs. It is based on the active ingredient nitenpyram. In tablet form, it begins to take effect in 30 minutes and can be given on an as-needed basis, up to once daily. It is available in a consumer six-pill pack and also in bulk packaging (100 pills) and is proving useful in a variety of situations. For example, veterinary clinics administer a dose to animals that are boarding or are having surgery to ensure that they are quickly free of flea infestations. Groomers and kennels often administer a dose to animals as they enter the premises to prevent infestation of other animals. Capstar/Program may also be used in combination with a slower-acting product, such as an IGR, to offer quick knockdown of existing adult infestations.

Prac-tic introduced in 2007 is a spot-on treatment for fleas and ticks used on a monthly basis. It is used for control of dog tick *Ctenocephalides canis*. It contains 125 mg pyriprole per ml. This product is yet to be introduced for the U.S. market.

New product activity for consumer products, however, remains moderate with few launches in the past two years. Although Novartis acquired the Japanese animal health business of Sankyo Lifetech Co., Ltd. in March 2007, the deal has not yet resulted in any noteworthy new U.S. products. In 2005, Novartis introduced Atopica, for the treatment of atopy in dogs, and Deramaxx canine analgesic. Later in 2007, they introduced Prac-tic, for spot-on treatment for fleas and ticks. In 2009, they launched Zolvix, ready to use oral solution for treatment of roundworms in sheep.

In addition to its consumer products, Novartis offers a broad range of professional products for the control of flies, worms, and rodents. Fly control products include Agita, Oxyfly, Larvadex, Neporex, and Spy. For worm infestation, Novartis offers Endex/Parsifal/Soforen, Milbemax, Lopatol, Combinex, Fasinex/Fascinex, Zolvix, and Interceptor. To control rodents, Novartis offers Ratsnip.

The company temporarily suspended the manufacturing operations of Interceptor and Sentinel at its Lincoln, Nebraska site in December 2011 on the possibility of a product mix-up while packing of the drugs.

MARKETING POLICIES

Novartis' pet insecticides are dispensed exclusively by veterinarians, either directly or through distributors. The company maintains a sales force of approximately 70 representatives who call on vets or veterinary product wholesalers. The company utilizes printed materials, brand websites, direct mail, advertisements, and articles in the veterinary trade press, and conferences and educational events for veterinarians to disseminate information about its products.

ADVERTISING

Novartis has no TME to support any of their consumer pet-related products in 2010 or 2011.

FACILITIES

Novartis is headquartered in Basel, Switzerland, with its U.S. headquarters located in Parsippany, NJ. Novartis Animal Health is headquartered in Greensboro, NC. About 80% of the company's animal health products, including Program and Sentinel, are manufactured under contract for Novartis.

Novartis employs about 123,700 people in 140 countries worldwide. Novartis Animal Health employs approximately 2,800 people worldwide, with approximately 280 located in the United States. Most of these U.S. Animal Health employees are based in Greensboro, NC. Most of the animal health products sold in the United States are manufactured at Novartis in Lincoln, Nebraska.

OUTLOOK

With rising competition in heartworm, flea, and tick products, relatively narrow distribution through veterinarians and limited new product activity, Novartis' U.S. sales of Sentinel and Program are expected to continue to post low single-digit growth through the forecast period. Depending upon various factors, including climatic and economic conditions, as well as changing health or reproduction rates of animal populations, these estimates may fluctuate somewhat. Through 2016, sales of the company's consumer insecticides are expected to grow by 1% to 3% per year, with average annual gains of 2.0%.

Table 9-62: Novartis' Outlook for Pesticides, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	116.0	-
2016	128.0	2.0

PBI/GORDON

OVERVIEW

Founded in 1947 as Private Brands Incorporated and expanded in 1956 with the purchase of Gordon Chemical, PBI/Gordon Corporation of Kansas City, MO, is a nationally known supplier of herbicides and plant-growth regulators for consumer lawns and gardens, farm and ranch, professional turf management and maintenance, and herbicides for agricultural use. The company has three divisions: Professional, Consumer, and Commercial. The Commercial Sales group supplies active ingredients and formulated private-label products to other lawn and garden formulators nationwide. In 1999, PBI/Gordon purchased Pegasus Labs, which supplies animal health products including vitamins, wound dressings, and other related products. Pegasus has continued to run separately from PBI/Gordon in 2007. In 2010, PBI/Gordon acquired the pet products brand of Church and Dwight Co. called Lambert Kay that included pet shampoos, nutritional products, medicines, cleaning tools, and pet training toys.

SALES AND PROFITS

PBI/Gordon is an employee stock ownership plan (ESOP) company and releases limited financial information. Corporate sales in 2011 are estimated at $105 million. The company continues to grow, primarily fueled by growth in consumer sales and the pet health divisions. Less than 5% of sales are outside the United States.

CONSUMER PESTICIDES AND FERTILIZERS

Consumer products are marketed by the Consumer Products Sales group under the Gordon brand and via the Commercial Sales group through third party companies under their own brands. Previously, the company also sold its products under the Acme brand, which has been phased out. Secondary brand names in the consumer market include Bug-No-More, Cleanout, Dura-Dust, Dura-Spray, Garden Guard, Grass-No-More, Hi-Dep, Pondmaster, Pronto, Weed-No-More, Pasture Pro, Brush-No-More, Jump-Shot, Bov-A-Mura, Trimec, and Speedzone.

New products introduced since 1999 include: Trimec herbicide hose-end sprayer; Trimec Plus herbicide for crabgrass, nutsedge, and broadleaves; Pondmaster Surface & Shorline herbicide; Pondmaster Blue herbicide/algaecide; Pondmaster Aquatic Herbicide, Pondmaster Algecide, Pondmaster Copper Sulfate Crystals, and Pasture Pro herbicide for brush and broadleaf control. In 2002, PBI/Gordon introduced glyphosate products under the Gordon's Pronto label, available in ready-to-use and concentrate formulations for non-selective post emergence control of broadleaf and grass weeds in a variety of home and hobby farm situations. Speed Zone Lawn Weed Killer targets very fast activity of hard-to-control weeds in home lawns. Azatrol EC Insecticide is a certified organic insecticide sold by the company for the last 10 years. The company also launched a low odor variant of Trimec in late 2010 for broad leaf weed.

Consumer sales for PBI/Gordon in 2011 are approximately $38 million, around 30% of the total sales.

Table 9-63: PBI/Gordon's Estimated U.S. Sales of Pesticides and Related Products to Consumer Markets by Product Category, 2011

Product category	$ Million	% Of total
HERBICIDES		
Lawn	17.1	45
Garden	4.9	13
Nonselective and other-a	2.7	7
Total	24.7	65
INSECTICIDES	8.4	22
FUNGICIDES AND ALL OTHER	4.9	13
TOTAL	**38.0**	**100**

a- Includes sales of aquatic herbicides and algaecides.

The company produces private-label products for other companies as well. Private-label products account for about 30% of the total sales for consumer pesticides and related products. About 70% of sales for consumer pesticides and related products are of the company branded products.

Table 9-64: PBI Gordon's Sales of Pesticides for Branded and Private-label Products, 2011

Product category	$ Million	% Of total
Branded products	26.6	70
Private label	11.4	30
Total	**38.0**	**100**

MARKETING POLICIES

PBI/Gordon's has separate sales divisions that cover for its markets. Consumer product sales are mainly in the Central, Midwestern, and Southeastern regions of the United States. An estimated 85% of the consumer products are sold through the distributors to the big and small retailers while the company sells 15% of the consumer products directly online and to mass merchandisers.

In April 2010, PBI/Gordon announced a marketing agreement with Mitsui Chemicals Agro of Tokyo, Japan that gives PBI/Gordon the rights to market and sell Dinotefuran in the U.S. golf market, as well as certain rights in other professional turf and ornamental markets.

The marketing group includes a Marketing Specialist for each product line, plus in-house advertising and creative groups, allowing quick response to opportunities in a timely and cost-effective manner.

ADVERTISING

PBI/Gordon had limited TME for 2010 or 2011. They use a mix of traditional and new media and dealer/distributor promotions. Their primary focus is on advertising for:

- ProForm and other herbicides, plant growth regulators, iron products – T&O
- Veterinary pharmaceuticals, consumer pet products, consumer "hobby farm" products

FACILITIES

PBI/Gordon employs about 325 people. The sales team for each business division is different and consists of a vice-president, regional sales managers and the sales representatives of the company, other than the distributors' representatives. PBI/Gordon operates warehousing and administration facilities in Kansas City, MO, and manufacturing operations in Crestline and Kansas City, KS. The Pegasus facility is located in Pensacola, FL.

OUTLOOK

Growth in 2011 has been consistent with the growth seen in the previous years. Sales for PBI/Gordon have grown at a consistent rate of 4% on a yearly basis since 2009. Aggressive sales policies on the part of PBI/Gordon and the growth by the customers supplied by the firm have led to these results. The company has had a steady pattern of growth for over last 10 years and intends over the next five years to continue to grow both the traditional pesticide business and the pet products lines. They are also investigating new technologies and acquisitions as they become available for their business divisions.

In view of these trends, PBI/Gordon is forecast to grow annually at a rate of 6% over the next five years.

Table 9-65: PBI Gordon's Outlook for Pesticides, 2011 to 2016		
Year	**$ Million**	**Average annual growth, %**
2011	38.0	-
2016	50.9	6.0

PFIZER

OVERVIEW

Pfizer Inc., of New York, NY, is the world's largest global pharmaceutical company that does research to discover, develop, manufacture, and market leading prescription medicines. In 2007, it operated in two business segments: Pharmaceutical and Animal Health. The third area, Consumer Healthcare, was exited with the sale of this division to Johnson & Johnson in December 2006.

The primary focus of this report is on the Animal Health Division. Pfizer entered the animal health market in the early 1950s when it was determined that the newly discovered human antibiotic, Terramycin, was also effective in treating animal diseases.

In 1997, Pfizer Animal Health launched Rimadyl, the first nonsteroidal anti-inflammatory drug for dogs for the treatment of osteoarthritis, which had first-year sales of $46 million. In 1998, Pfizer launched Anipryl, the first approved treatment for canine Cushing's disease. In July 1999, Pfizer introduced Revolution, a topical parasiticide for dogs and cats based on the active ingredient selamectin. Revolution, applied as a spot-on treatment, provides flea control, heartworm prevention, ear mite treatment for dogs and cats, sarcoptic mange and tick control in dogs, and nematode treatment in cats. Mita-Clear, a lotion for treatment of ear mites in cats, and Cestex tablets for control of tapeworm in cats came into the product line in 1995 with the merger of Pfizer and SmithKline Beecham.

In 2009, Pfizer acquired Wyeth including its subsidiary Fort Dodge Animal Health. The acquisition has helped Pfizer Animal Health to greatly diversify its U.S. portfolio, as well as broaden its offering in all animal health segments. Pfizer also had to divest certain animal health assets in connection with the regulatory approval process associated with the acquisition of Wyeth. The products divested were primarily from Wyeth's Fort Dodge Animal Health portfolio in the United States and Canada to Boehringer Ingelheim (BI). These products mainly included cattle and small animal vaccines, and some animal health pharmaceuticals.

In 2011, Pfizer completed the divestiture of Capsugel and acquisition of King Pharmaceuticals, a prescription pharmaceutical company into pain treatment formulations and animal health business. The company also acquired Ferrosan's Consumer Health business, a Danish company dealing in consumer healthcare products, including dietary supplements and lifestyle products, mainly in the Nordic region and the emerging markets of Russia and Central and Eastern Europe. In February 2012, Pfizer acquired Alacer Corp., a privately owned company manufacturing and selling vitamin supplements, like Emergen-C, primarily in the United States.

In 2010, Pfizer Animal Health also acquired Vancouver Island-based Microtek International to mark its foray into vaccines against farmed fish. Pfizer Animal Health also signed a global distribution agreement in 2010 with Epitopix, a manufacturer of animal vaccines, based in Minnesota, US.

Since the close of the Wyeth acquisition, Pfizer has operated two distinct commercial organizations:

- Biopharmaceutical: Includes the Primary Care, Specialty Care, Established Products, Emerging, and Oncology customer-focused units
- Diversified: Includes Animal Health, Consumer Healthcare, Capsugel, and Nutrition

Table 9-66: Pfizer's Corporate Sales by Business Segment, 2011

Business segment	$ Million	% Of total
BIOPHARMACEUTICALS	57,747	85.6
DIVERSIFIED		
Animal Health-a	4,184	6.2
Others	5,494	8.1
TOTAL	**67,425**	**100.0-a**

a- Totals may not add up due to rounding.

SALES AND PROFITS

Pfizer reported worldwide corporate sales of $67.4 billion in 2011. The 2011 sales have stayed flat with 2010 worldwide sales at $67.0 billion. Corporate net income increased 21% to $10.00 billion in 2011 compared with $8.25 billion in 2010. The Pharmaceutical segment contributed approximately 87% of revenues in 2011 with about 12 products of the pharmaceutical segment crossing direct sales of $1 billion and representing 56% of pharmaceutical revenues in 2011.

Total Animal Health sales increased 17% to $4,184 million in 2011 from $3,575 million in 2010. This increase can be attributed to addition of revenues from King animal health products, primarily driven by improving market conditions across the livestock business, as well as better market penetration in emerging markets.

CONSUMER PESTICIDES AND FERTILIZERS

Pfizer's sales of consumer pet insecticides include Revolution, a topical transdermal parasiticide that is both an extocide and endectocide. Introduced in July 1999, Revolution is a broad-spectrum parasiticide for both dogs and cats. Revolution provides flea control, heartworm prevention, and ear mite treatment for dogs and cats. It also provides sarcoptic mange and tick control in dogs and intestinal worm control in cats. Rimadyl is for the treatment of pain and inflammation associated with canine osteoarthritis and soft-tissue orthopedic surgery. Mita-Clear is a parasiticide for ear mites in cats, and Cestex is a parasiticide for tapeworm in cats. Mita-Clear and Cestex are relatively small in sales compared with Revolution. All these products are available only through veterinarians.

The unfavorable impact of foreign exchange decreased revenues by 5%. It is estimated that Revolution accounts for the majority of sales to the companion animal insecticide market with an estimated $85 million in U.S. sales in 2011.

Table 9-67: Pfizer's Corporate Sales, 2003-2011

Year	$ Million	Change, %
2003	1,598	42.8
2004	1,953	22.2
2005	2,206	13.0
2006	2,311	4.8
2007	2,639	14.2
2008	2,825	7.0
2009	2,764	(2.0)
2010	3,575	29.3
2011	4,184	17.0

MARKETING POLICIES

Approximately 120 company sales representatives nationally market Pfizer's flea and tick products directly to veterinarians.

ADVERTISING

Pfizer had a TME of $3,300 in 2010 for advertising its Revolution Cat & Dog Rx product, which was featured on Internet displays. The company had no TME for the Revolution product in 2011.

FACILITIES

Pfizer's corporate headquarters and the headquarters of its Worldwide Pharmaceuticals and Animal Health businesses are located in New York, NY. After its merger with Wyeth, Pfizer employs approximately 120,000 people worldwide.

OUTLOOK

Pfizer's sales of Revolution are expected to continue to grow in the next five years due to the unique capability of the product. Revolution is a transdermal topical with a wide spectrum of control including fleas, ticks, heartworm, and mites. It is effective on the exterior of the animal and also is absorbed through the skin into the bloodstream to give additional protection.

Competition has grown in the animal health market, however, from other spot-on products for control of fleas and ticks, available either through veterinarians or in OTC retail outlets. Growth in the overall flea and tick market in the United States is expected to slow somewhat as the market has become saturated. Frontline and Advantage have currently emerged as the frontrunners of veterinary flea and tick medications in the United States. Growth is forecast to continue for Revolution, however, because of its unique broad spectrum advantage. It is expected to show domestic growth of 3.0% per year over the next five years.

Table 9-68: Pfizer's Outlook for Pesticides, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	85.0	-
2016	98.5	3.0

PIC CORPORATION

OVERVIEW

Privately held PIC Corporation of Orange, NJ, is a family-run business that offers a range of products for the control of flying insects, crawling insects, and rodents.

The company was founded in 1953 with the importation of a mosquito repellent from Japan. Its name originated from the active ingredient used in the coil: Pyrethrum, which led to the name Pyrethrum Insecticide Coil, or PIC. By 1973, PIC began manufacturing its original mosquito repellent coil in Linden, NJ, in the first automated mosquito coil plant in the world. The coils were widely offered at drive in theaters. As the company grew, PIC moved to a larger, multileveled facility in Orange, NJ, expanding from 3,000 sq ft to locations on three continents for manufacturing, sales, and shipping. PIC now manufactures and markets household insecticides, insect repellents, rodent glue traps, and sticky fly strips for consumer use. It also produces household insecticides under a private label. The company has been awarded a "Mobius Certificate of Excellence" for the Home Care and Maintenance Products: Insecticide Packaging category.

PIC Corporation has recently received PTPA (Parents Tested Parents Approved) Winner's Seal of Approval for their Twist It Mosquito Repeller. In 2011, PIC Corporation received an award in the personal, health & garment care category for its product Bugables Mosquito Repellent Stickers at the 9th annual Housewares Design Awards.

SALES AND PROFITS

PIC Corporation is privately held and releases limited financial information. Corporate sales are estimated at a rounded $11.3 million in 2011, up from $8 million in 2009. U.S. sales account for 80% of the corporate sales. Around 75% of the company's products are sold under its own brand names of PIC and DOA, with the remaining 25% private labeled. About 70% of sales are made through distributors/brokers, and 30% of sales are made directly to retailers. PIC does not sell any products specifically for professional use. While more than half of the company's sales are comprised of non-chemical products such as baits and traps, the remaining is divided between insecticides and insect repellants.

CONSUMER PESTICIDES AND FERTILIZERS

The company's products are organized into four groups: insect repellents, flying insect control products, crawling insect-roach control, and rodent control. The repellent line includes mosquito-repellent sticks and coils, citronella sticks, wristband and coils, insect repellent pump spray and lotion, and Mosquito Treater and Bite Relief, an anesthetic antiseptic product that comes in an easy to use plastic vial. Coil burners and pewter mosquito coil burners are also available. Flying insect chemical control products control flies, bees, moths, wasps, and gnats through products like House and Garden Bug Killer and Wasp and Hornet Killer. Non-chemical products include yellow jacket, wasp traps, and fly and bug ribbon and jumbo fly sticks, which are non-toxic and glue-based. The patented yellow jacket and wasp traps contain six entry holes for maximum effectiveness. The Wasp and Hornet Killer III following the version II is designed with a 16 foot propellant. Fly swatters, jumbo fly stick cylinders, and window fly traps are also available.

Crawling insect products target insects such as cockroaches, ants, silverfish, ticks, and spiders. PIC offers roach control systems that are university tested and come with 12 child proof bait stations. Ant Killing Systems and Ant Control Bonus Packs are also available. Other products include large and regular roach traps, ant traps, syringes with roach killer gel to target cracks and crevices, liquid ant killer, Ant Killer Gel, Boric Acid Roach Killer in various economical sizes, Roach Killer Gel, Roach Control bait trays and stations, ant bait stations and traps, and Fire and Liquid Ant Killer. Roach Ant & Spider Killer sprays with straw for accuracy are also available. Roach Killing Paste with fast acting ingredient Baygon can be used with a syringe. Roach Killer and Roach Killing Gel with Boric Acid can be used to address both ants and silverfish. PIC also offers glue traps for roaches and rodent control products such as mechanical rat and mouse traps in natural wood and glue boards.

The company has recently launched a few products like Bugables Mosquito Repellent Stickers and Twist It Mosquito Repeller. The company also plans to launch specific control products for bed bugs, spiders and insecticide-free products.

Currently, all of PIC's sales are into the household market. Branded products are sold under the PIC label and account for approximately 75% of sales.

Table 9-69: PIC's Sales of Pesticides by Product Type, 2011		
Product category	**$ Thousand**	**% Of total**
BRANDED		
Insecticides	1,700	15
Insect repellents-a	2,250	20
Other-b	4,500	40
Total	8,450	75
PRIVATE LABEL		
Household insecticides	2,815	25
TOTAL	**11,265**	**100**

a- Includes mosquito coils.
b- Includes glue traps, fly sticks, and fly ribbons.

MARKETING POLICIES

PIC Corp. sells its products throughout the country largely through local retailers, although some national chains such as Walgreens stock the PIC line. PIC also has an online presence at www.pic-corp.com; buyers and distributors can visit the site to purchase products, although the website is not enabled for retail sales to consumers. The company has three sales representatives and works with another 30 manufacturers' reps. The majority of the retail sales happen in the East, west, and mid-west regions of the US.

The company's products are available at 99 Cents, Dollar Tree, FredMeyer, Fred's, HEB, Supervalu, Walgreens, and Walmart in the states of California, Virginia, Oregon, Tennessee, Texas, Minnesota, and Arkansas.

The company has also started sales through the online retailers like Academy, AIH, Alice, Amazon, Aubuchon Hardware, Face Values, The Home Depot, and Walgreens.

ADVERTISING

PIC engages in limited advertising, with no traceable media expenditures identified in 2010 or 2011. Its marketing and promotional activities are also limited, focused mainly on retailer promotions.

FACILITIES

PIC employs approximately 40 persons at its headquarters and manufacturing facility in Linden, NJ and sales personnel in various locations around the United States.

In 2006, the company engaged Figtree Consulting to upgrade its shipping and receiving processes. These processes were inefficient, time-consuming, and held a potential for error and loss of data. The receiving process required several steps including hand entry of warehouse receipts, then reentry of this data into an office accounting system; the shipping process required multiple steps, including the printing of labels and Bills of Lading outside of the accounting system. Figtree installed a real-time financial and inventory system that would gather data from its warehouse, produce all shipping papers (package level detail, Bill of Lading and Advanced Shipping Notice (ASN) information) and update this information into its accounting system for invoicing and reporting. As a result, the company was able to reduce its staff by 40%.

OUTLOOK

As with other manufacturers of insecticide, PIC will benefit from growing understanding of the importance of pest control, mitigated by a weakening housing market, particularly in the Northeast. Against this landscape, the company's regional focus, limited sales and marketing capabilities and relatively slow pace of new product introduction will position it behind many of its more dynamic competitors who are looking to adopt aggressive strategies in the coming years. Through the forecast period, sales of the company's own branded products are expected to rise by 4% per year, to reach $8.6 million in 2016.

Table 9-70: PIC's Outlook for Pesticides, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	8.4	-
2016	10.3	4.0

RECKITT BENCKISER

OVERVIEW

Reckitt Benckiser PLC, which is headquartered just outside London, England, is a publicly held global manufacturer and marketer of brand name consumer products. The company has operations in 60 countries and sells its products in 180 countries around the world.

Its brands fall into these categories: household cleaning, health and personal care, and food products. The home care sub-category, which accounts for 12.7% of net revenue, consists of air care, pest control, and shoe care. While primarily sold to consumers, Reckitt Benckiser's products are also used in professional markets to clean and disinfect hospitals, nursing homes, schools, hotels, resorts, and other institutions, and are sold to food manufacturers and the food service industry.

Reckitt & Sons, which eventually became Reckitt Benckiser, was launched on the London Stock Exchange in 1888. Its roots trace back to 1814 when Jeremiah Colman began milling flour and mustard in Norwich, United Kingdom. Then in 1823, Johann A. Benckiser founded a core business derived from industrial chemicals, and in 1848, Isaac Reckitt bought a starch mill in Hull. The company was known as Reckitt & Colman PLC before its December 1999 merger with Benckiser N.V., which made it the number one producer of household cleaning products in the world.

Since then, Reckitt Benckiser has grown briskly, as a result of both organic growth as well as several key acquisitions. In early 2006, Reckitt Benckiser completed its acquisition of Boots Healthcare International for $1.9 billion, which broadened its presence in the health care market, particularly in over-the-counter drugs. Reckitt Benckiser further expanded this position through its January 2008 acquisition of Adams Respiratory Therapeutics for $2.2 billion.

In 2010, Reckitt Benckiser acquired SSL International, a British manufacturer of healthcare products with brands like Durex condoms, Scholl sandals, Sauber, and Mister. SSL is now reported within the health and personal care product category of Reckitt Benckiser.

In April 2011, Reckitt Benckiser completed the acquisition of Paras Pharmaceuticals Limited. an Indian consumer healthcare company, having strong local brands like Moov topical pain ointment, Dermicool powder for prickly heat, D'Cold cold and flu remedy tablets and syrups, and Krack medicated skin treatment for cracked heels.

SALES AND PROFITS

In 2011, Reckitt Benckiser reported total corporate sales of £9,485 million, up 12.2% at constant exchange rates from the prior year. Operating profit increased 14%, at constant exchange rates, to £2,395 million in 2011. Growth was driven by growth in emerging markets and brands like Dettol, Nurofen, Mucinex, Strepsils, Gaviscon, and Harpic, which accounted for more than 60% of the total sales in 2011. Some part of this high growth can also be attributed to high growth in sales of the recently acquired companies by Reckitt Benckiser. Significant investments were made towards media and marketing and successful new product initiatives boosted the overall performance. Profit growth resulted from strong gross margin expansion. North American sales accounted for about 25% of overall sales in 2011.

Key Reckitt Benckiser products include Lysol cleaners and disinfectants, Mucinex, Calgon water softener, Woolite fine fabric wash, Spray 'N Wash stain remover, Old English furniture wax, French's mustards, and Frank's Red Hot Sauce. Most of its brands command the number one or two positions in their categories.

Home care sales, which include air fresheners, as well as the d-CON rodenticide product line, grew 4.5% to £1,204 million in 2011. This growth was mainly due to the launch of Air Wick 100% natural propellant spray and Air Wick Freshmatic Odour Detect. In pest control range, growth in automatic sprays coupled with a strong season drove the growth. The company does not disclose country sales by category, although it is estimated that U.S. sales account for 45% of home care revenue. Reckitt Benckiser's sales of d-CON consumer rodenticides are estimated at $112 million in 2011.

Table 9-71: Reckitt Benckiser's Corporate Sales by Category, 2011

Category	£ Million	Growth, % (2010–2011)
Fabric Care	1,503	(5)
Health & Personal Care	3,156	36
Surface Care	1,422	2
Home Care-a	1,204	5
Dishwashing	896	2
Pharmaceuticals	762	3
Food	315	4
Other	227	NA
Total	**9,485**	

a- Includes d-CON rodenticide as well as air fresheners.

CONSUMER PESTICIDES

Reckitt Benckiser is the major supplier of rodent control products in the U.S. market with sales driven by its d-CON brand, which features bait or traps to kill rats and mice in a variety of presentations. Widely available at major retailers throughout the United States including CVS, Walgreens, Lowes, Home Depot, and Wal-Mart, the d-CON line includes a variety of baits such as Mouse Prufe II (Wedge), Bait Pellets (Place Packs), d-CON Ready Mix, d-CON Ready Mixed Baitbits, and d-CON Bait Blocks, as well as traps such as d-CON No View, No Touch, d-CON Ultra Set, d-CON Flat Glue Traps, and d-CON Wood Snap Trap. All d-CON baits include brodifacoum as an active ingredient, which thins rodents' blood so they effectively experience a stroke. The d-CON product line was acquired from Lehn & Fink in September 1994, when the company purchased Lehn & Fink's household business from Eastman Kodak for $1.5 billion. New product activity was moderate in last two years, with new product launches including flexible d-CON Bait Paste Pouches and d-Con Quick Kill Glue Traps.

Reckitt Benckiser's extensive line of Mortein insecticides, which is a part of home care category, is not marketed in the United States.

MARKETING POLICIES

In 2009, Reckitt Benckiser launched its new corporate brand identity with a new logo "RB." They have also initiated a tagline to promote their top selling brands: "The Power behind the Powerbrands'

Reckitt Benckiser is the dominant supplier of consumer rodenticides in the United States, with no close competitor for the d-CON brand. The company's sales force of more than one hundred representatives sells the products directly to supermarkets and grocery stores, lawn and garden centers, mass merchandise stores, and hardware stores. There are also limited sales through distributors. Sales of rodenticides are strongest in the Midwest and Southeast, where hot and wet climate conditions support high rodent reproduction.

The company maintains a dedicated Web site for the d-CON line, www.d-conproducts.com, which describes product offerings and offers information about rodent control. Consumers may also register to receive a periodic e-mail newsletter containing product information, special offers, and sweepstakes opportunities.

Following a series of accidents of small kids consuming rat poison, Environment Protection Agency (EPA) presented RMD (Risk Mitigation Decision) in 2011 which is a set of new regulations intended to keep highly toxic second-generation rodenticides out of the hands of kids. The most significant impact of the RMD is the EPA's regulation to end access to any rodenticide containing a second generation active ingredient and any product that is sold in loose-bait form.

However, d-CON has opposed this new set of regulations maintaining that health risks caused by rodents are likely to become significantly worse if effective and affordable rodenticides are removed from consumer use. Following the statement, d-CON has chosen not to voluntarily withdraw four of its rodenticide bait products from the marketplace in the US. D-Con instead replaced the active ingredient they had been using, brodifacoum, with hydroxycoumarim.

ADVERTISING

Reckitt Benckiser does varying amounts of advertising to support its d-CON mouse and rat control product line. In 2010, TME totaled $6.2 million, up from $4.6 million in 2009, mostly on television advertising. In 2011, expenditures decreased to about $3.6 million, with all of it being spent on advertisements on the various TV formats.

Table 9-72: Reckitt Benckiser's Advertising Expenditures for d-CON Products, 2010 to 2011

	$ Thousand					
Product	Magazines	Network TV	Spot TV	Syndicated TV	Cable TV	Total
2010						
d-CON Mouse & Rat Bait	-	32.5	259.6	822.3	784.6	1,898.9
d-CON Mouse Bait & Trap	-	83.7	255.8	913.8	488.8	1.742.2
d-CON Mouse Trap	210.1	-	-	-	-	210.1
d-CON No View No Touch Mouse Trap	-	39.7	185.7	1,133.4	1,021.4	2,380.2
d-CON Quick Kill Mouse Trap	-	-	2.1	-	-	2.1
Total	210.1	155.9	703.2	2869.5	2294.8	6233.5
2011						
d-CON Mouse & Rat Bait	-	381.9	390.7	1,032.1	1,574.7	3,379.4
d-CON Mouse Bait & Trap	-	-	15.2	46.3	252.9	314.4
d-CON No View No Touch Mouse Trap	-	-	0.1	-	-	0.1
Total	-	381.9	406.0	1,078.4	1,827.6	3,693.9

FACILITIES

Reckitt Benckiser has its U.S. headquarters, including management for the d-CON brand, in Parsippany, NJ, having moved there from Wayne, NJ, in November 2003. The Research & Development Center is in Montvale, NJ.

Five manufacturing plants are located throughout the United States, including Mississippi, where d-CON pesticides are manufactured. As of early 2012, Reckitt Benckiser employs 37,800 people worldwide. Approximately 4,000 are in the North America/Australia region, more than two-thirds of which are in the United States.

OUTLOOK

Over the next several years, in case there is no strict enforcement of EPA's RMD regulations, Reckitt Benckiser is expected to remain the dominant supplier of rodenticide for the consumer market with high brand awareness of the d-CON line and continued strong sales and marketing support. Key trends that will support ongoing demand for rodenticides include population movement into rural areas and rising hurricane activity in the Southeast. New construction in areas with relatively untamed rodent populations will create a need to control pests. At the same time, wetter conditions support higher levels of rodent reproduction, thereby requiring rodent control measures.

Reckitt Benckiser's sales of the d-CON range of consumer rodenticides in the United States are expected to grow by an average of 3.5% per year to reach around $135.0 million in 2016.

Table 9-73: Reckitt Benckiser's Outlook for d-CON Products, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	112	-
2016	135	3.5

S.C. JOHNSON

OVERVIEW

Based in Racine, WI, S.C. Johnson and Son, Inc. is one of the world's largest consumer product companies with several well-known brands including Glade air fresheners, Pledge furniture polish, Windex window cleaner, Shout stain removers, Ziploc plastic bags, OFF! insect repellents, and Raid insecticides. These are available in more than 110 countries. In the U.S. consumer market, S.C. Johnson is the leading producer of insect repellents and insecticides. The company remains 100% owned by the Johnson family.

S.C. Johnson entered the consumer lawn and garden market through the acquisition of Security Chemical Company in August 1984 and Chacon Chemical Company, a subsidiary of Garden America, in February 1987. Chacon was merged with Security to form Security Products Company. In December 1989, S.C. Johnson divested Security. The company is no longer involved in the lawn and garden market other than through the sale of outdoor insecticides contained within its household insecticide product lines.

In July 1995, S.C. Johnson's Professional division acquired Whitmire Research Laboratories (St. Louis, MO) and merged it with its Micro-Gen Equipment Corp. (originally of San Antonio, TX) unit, which became a subsidiary of S.C. Johnson's in 1994. Both Whitmire and Micro-Gen, now called Whitmire Micro-Gen Research Laboratories, Inc., produce pesticide formulations and equipment for the professional pest control industry. In June 2004, however, S.C. Johnson divested Whitmire to U.K.-based Sorex Group, a leading manufacturer of professional pest control products for the European market. The divestiture removed S.C. Johnson from the professional insecticide market, leaving only its consumer business.

In December 2002, S.C. Johnson acquired the household insecticides unit of Bayer AG, adding insect control, cleaning, and air freshening items that had sales in 2001 of $396 million. The buyout provided Johnson with worldwide rights to the Bayer brands Baygon, Autan, Bayclin, and Bayfresh, among others. Bayer continues to supply the active ingredients to Johnson on a nonexclusive basis.

S.C. Johnson continues to maintain a reputation as an excellent corporate citizen, receiving a perfect 100% rating on the Human Rights Campaign's annual Corporate Equality Index report in each year since 2003. The company contributes a minimum of 5% of its pretax profits for programs designed to improve quality of life around the world. Furthermore, from 2005 to 2007, S.C. Johnson was ranked by *Fortune Magazine* as one of the top 10 "Companies to Work For" in their annual ranking and in 2007, it ranked #7. In 2010, S.C. Johnson was named the fourth most innovative company in the consumer products category on *Fast Company* magazine's annual Most Innovative Companies list.

In 2011, S.C. Johnson challenged U.S. EPA regulations that came into effect in 2006 and involved deep review of pesticide studies that use human subjects. According to S.C. Johnson, such regulations only contribute to stifling and demotivating research efforts in the field of pesticides. S.C. Johnson also added that in addition to the extra cost involved in adhering to the new guidelines, a lot of time is wasted before a chemical ingredient is reviewed by EPA.

SALES AND PROFITS

S.C. Johnson is privately held and releases limited financial information. Sales of total consumer products are estimated at $9.1 billion for the company's 2011 fiscal year ending June 30. Sales of S.C. Johnson for consumer insect repellants and insecticides are estimated at $260 million. The retail sales of S.C. Johnson's consumer insect repellants and insecticides are estimated at $315 million

CONSUMER PESTICIDES AND INSECT REPELLENTS

S.C. Johnson is the leading U.S. supplier of insect repellents. Its products are sold under the OFF! brand name, and include OFF! Clip on Mosquito Repellent, OFF! Deep Woods, OFF! Deep Woods Sportsman, OFF! Family Care, OFF! Active, OFF! Powerpad Mosquito Lamp and Lantern, OFF! Yard and Deck Repellant, OFF! Mosquito Coil, and OFF! Citronella Buckets. The OFF! products contain various amounts of the insect repellent *N,N*-diethyl-meta-toluamide (DEET).

The Deep Woods line is formulated with a high level of active ingredients for long-lasting effectiveness, and is designed to repel mosquitoes that may carry West Nile Virus. It is available both in the form of a spray and a towelette. The product provides long lasting protection from mosquitoes, ticks, biting flies, gnats, and chiggers. OFF! Deep Woods Sportsman is highly effective in offering protection in intense bug-biting situations. This product repels mosquitoes, ticks (including ticks that carry Lyme disease), chiggers, fleas, stable flies, black flies, gnats, and deer flies. It is available both as an aerosol and as a pump/spray. In 2011, OFF! Deepwoods brand range of products witnessed estimated sales of around $32 million at the retail level in the United States.

In January 2006, S.C. Johnson introduced OFF! Active. The line contains a mid-level amount of DEET along with sunscreen for consumers seeking a sweat-resistant product that could be used in conjunction with sports or other outdoor activities. OFF! Active products include aerosol, pump spray, and lotion, the latter of which includes a 30 SPF sunscreen. In 2011, OFF! Active range of products witnessed estimated sales of around $9.3 million at the retail level in the United States.

In 2007, S.C. Johnson renamed its OFF! Skintastic line, retaining the basic lineup of products but rebranding them as OFF! Family Care to encourage use by both adults and children. OFF! Family Care products are available as both aerosol and spritz, and repel mosquitoes, biting flies, and gnats. This line contains the lowest level of DEET of all OFF! products. In 2011, OFF! Skintastic range of products witnessed estimated sales of around $30 million at the retail level in the United States.

Also in 2011, OFF! Outdoor range of products witnessed estimated sales of around $25 million at the retail level in the United States.

OFF! PowerPad Mosquito Lamps and Lanterns are effective enough to protect an area 15 times greater than citronella candles or buckets. They are highly effective in extreme mosquito conditions, and can also repel mosquitoes that may carry West Nile Virus. OFF! Yard and Deck Repellant repels flying insects, such as mosquitoes, gnats, flies, wasps, hornets, and small flying moths. It is also effective against ants, crickets, and centipedes. It is available in the form of a spray. Each OFF! Mosquito Coil can be used in a 10 ft. x 10 ft. area.

In 2009, the company introduced its OFF! clip-on mosquito-repellent which was a big hit in the market. The product clips to clothing and offers an alternative to applying insect repellent directly to the skin. Exceeding its sales by 400% in the first month, it boosted the sales for the OFF! brand in the U.S. market. In 2011, OFF! Clip-On range of repellent products witnessed estimated sales of around $25 million at the retail level in the United States.

Table 9-74: S.C. Johnson's Selected OFF! Range of Products, 2011

Product	Form	Active ingredient %
OFF! DEEP WOODS		
OFF! Deep Woods	Fragrance-free pump	25
OFF! Deep Woods	Aerosol	25
OFF! Deep Woods	Towelettes	25
Deep Woods OFF! for Sportsmen	Unscented aerosol	30
Deep Woods OFF! for Sportsmen	Pump/Spray	25
Deep Woods OFF! for Sportsmen	Pump/Spray	100
OFF! ACTIVE		
OFF! Active	Aerosol	15
OFF! Active	Pump/Spray	25
OFF! Active 30 SPF Lotion	Lotion	10
OFF! FAMILY CARE		
OFF! Family Care Smooth & Dry	Aerosol	15
OFF! Family Care Clean Feel	Pump/Spray	5
OFF! Family Care Tropical Fresh	Pump/Spray	5
OFF! Family Care Unscented	Pump/Spray	7
OFF! Family Care	Towelettes	5
OFF! CLIP-ON		
OFF! Clip-On Mosquito Repellent	Refill	60

S.C. Johnson is also the largest U.S. supplier of household insecticides, with Raid as its original insecticide brand. The Raid line includes products for control of ants, roaches, fleas, spiders, crickets, silverfish, wasps, hornets, and other flying insects. The products come in easy-to-use aerosol cans and are available in fragrances or unscented. In December 2006, S.C. Johnson discontinued its Earth Options products, a relatively new line that was formulated with natural ingredients and was designed to fit with rising consumer preferences for environmentally-friendly products. The three plant-based, clove-scented items, which suffered from low consumer acceptance, include Raid Earth Options Ant & Roach Killer, Raid Earth Options Wasp & Hornet Killer and Raid Earth Options Flying Insect Killer. The company has also discontinued several duplicative line items including Raid Concentrated Fogger, Raid Max Fogger, and Raid Ant Bait Plus.

However, S.C. Johnson continues to introduce new Raid line extensions and in 2007 introduced two new items—Raid Yellow Jacket Trap, a pre-filled trap that includes non-toxic attractant, and Raid Ant & Roach Killer Lemon Scent. This latter product is a lemon-scented version of original Raid, designed with a more appealing fragrance. In 2011, Raid range of products witnessed estimated sales of around $72 million at the retail level in the United States. In particular, Raid Max product sales at the retail level in 2011 increased to more than 900% over the 2009 sales to reach $18 million.

Table 9-75: Selected Raid Products and their Active Ingredients, 2011

Product	% Active ingredient
ROACH CONTROL	
Raid Ant & Roach Killer (Lemon Scent, Country Fresh, Outdoor Fresh, Fragrance Free)	0.1% cypermethrin 0.1% imiprothin
Raid Outdoor Ant & Roach killer	0.2% tetramethrin 0.2% permethrin
Raid Max Roach Killer	0.101% imiprothrin 0.05% deltamethrin
Raid Double Control Large Roach Baits	0.05% abamectin
Raid Double Control Small Roach Baits	0.05% abamectin
Raid Double Control Small Roach Baits Plus Egg Stoppers	0.05% abamectin
Raid Ant & Roach Killer with GermFighter	0.1% O-phenylphenol 0.1% pyrethrins 0.2% permethrin
WASP CONTROL	
Raid Wasp & Hornet Killer	0.2% tetramethrin 0.2% permethrin

(Continued)

Table 9-75: Selected Raid Products and their Active Ingredients, 2011

Product	% Active ingredient
ANT CONTROL	
Raid Ant Bait III	0.05% abamectin
Raid Outdoor Ant Spikes	0.05% abamectic
Raid Double Control Ant Baits	0.05% abamectin 0.5% sulfonamide
Raid Scent Ant Killer Pine Forest Fresh	0.2% pyrethrins 0.13% permethrin
Raid Max Double Control Ant Baits	0.05% abamectin
FLEA CONTROL	
Raid Flea Killer	<1.0% piperonyl butoxide <1.0% pyrethrum extract
Raid Flea Killer Plus Fogger	0.50% pyrethrins 0.075% methoprene 1.67% N-octyl bicycloheptene dicarboximide
Raid Flea Killer Plus Carpet & Room Spray	0.14% pyrethrum 0.064% tetramethrin 0.015% methoprene
YELLOW JACKET CONTROL	
Raid Yellow Jacket Trap	Natural, non-toxic attractant
FLIES AND MOSQUITOES	
Raid Flying Insect Killer	0.5% piperonyl butoxide 0.143% D-cis trans allethrin 0.143% sumithrin
Raid Yard Guard Outdoor Fogger	0.1-1% Permethrin 0.1-1% Allethrin
HOUSE AND GARDEN	
House & Garden Bug Killer	0.096% phenothrin 0.23% d-trans Allethrin
WASPS AND HORNETS	
Raid Wasp & Hornet Killer	0.05% cis-, trans- Cypermethrin 0.02% Prallethrin
FOGGERS	
Raid Fumigator	12.6% permethrin
Raid Max Concentrated Deep Reach Fogger	1.716% cypermethrin
Raid Yard Guard Outdoor Fogger	0.143% d-trans Allethrin 0.225% permethrin

MARKETING POLICIES

Approximately 350 company sales representatives market S.C. Johnson's products directly to large retail chains, wholesalers, and jobbers. All products are sold nationally, and are available at a broad range of food stores including Albertson's, Acme, and ShopRite; drug stores such as Long's, Walgreen's, Eckerd, RiteAid, and Duane Reade; hardware stores including Ace, True Value, and Sears; and home centers such as Home Depot and Lowe's. Products are also available in warehouse club outlets, typically in larger sizes and multipacks. However, Wal-Mart remains the leading retail outlet for S.C. Johnson's insect repellent and insecticide products, accounting for more than one-fourth of U.S. sales of OFF! and Raid.

FACILITIES

S.C. Johnson's executive offices are located in Racine, WI. Manufacturing of most insecticides and insect repellents is done at the company's Racine, WI, facility, referred to as the Waxdale plant. S.C. Johnson employs about 13,000 people in more than 70 countries worldwide.

ADVERTISING

S.C. Johnson's TME expenditures in 2010 totaled $36.1 million, with about $16.3 million being spent on the OFF! Brand and $19.8 million spent on the RAID brand. The TME decreased in 2011 to $31.1 million even though they advertised more brands. The majority of expenditures were spend on the OFF! Brand with $13.2 million, whilst $11.7 million was spent on the RAID brand and $6.1 million for the DEEP WOODS OFF brand. The largest expenditures for 2010 were for Cable TV, Network TV and Magazines, whilst in 2011 it was for Cable TV, Network TV and Syndicated TV.

OUTLOOK

S.C. Johnson continues to dominate the highly competitive U.S. insecticide and insect repellent market with a combination of strong brand awareness, savvy marketing and selected new product introductions. It is the leader in the field of consumer insecticides and pest control products, with Spectrum Brands being the distant second. Over the past two years, the company has pared its product line to eliminate redundancy, while filling gaps in its portfolio with new Raid Ant and Roach Killer Lemon Scent and Raid Yellow Jacket Trap. S.C. Johnson also maintains strong ties to leading mass merchandisers such as Walmart, which continue to expand their share of retail sales through aggressive new store openings and existing store expansions.

Table 9-76: S.C. Johnson's Advertising Expenditures to the Consumer Market, 2010 to 2011

	$ Thousand							
Product	**Maga-zines**	**Sunday Mag**	**Network TV**	**Spot TV**	**Syndicated TV**	**Cable TV**	**Internet**	**Total**
2010								
OFF!								
Insect Repellent	-	-	-	-	-	-	0.4	0.4
Insect Repellent Clip on Fan	3,009.1	724.2	3,780.6	770.4	1,656.2	4,725.1	1,438.6	16,104.1
Familycare Smooth & Dry	-	-	-	1.0	-	-	-	1.0
Powerpad Mosquito Lamp	-	-	-	0.7	-	246.1	-	246.9
Total Off	3,009.1	724.2	3,780.6	772.1	1,656.2	4,971.2	1,439.0	16,352.4
Raid								
Ant & Roach Killer	-	-	-	2,317.5	-	-	-	2,317.5
Vignette	-	-	-	1.7	-	-	-	1.7
Earth Options Insecticides	5,554.8	-	-	-	-	-	-	5,554.8
Raid Max Insecticides	30.7	493.0	-	-	-	-	-	523.7
Max Bug Barrier Insecticides	-	-	3,518.3	770.5	2,537.2	4,577.5	-	11,403.5
Total Raid	5,585.5	493.0	3,518.3	3089.7	2,537.2	4,577.5		19,801.2
Total 2010	8,594.6	1,217.2	7,298.9	3,861.8	4,193.4	9,548.7	1,439.0	36,153.6
2011								
Off!								
Insect Repellent Clip on Fan	2,394.8	605.3	2,881.6	764.7	1,969.7	3,954.8	629.6	13,200.4
Total Off	2,394.8	605.3	2,881.6	764.7	1,969.7	3,954.8	629.6	13,200.4
Deep Woods Off								
Insect Repellent	-	-	-	-	-	-	662.9	662.9
Dry Insect Repellent	227.2	905.2	1,036.3	256.7	424.6	2,657.6	-	5,507.6
Total Deep Woods Off	227.2	905.2	1,036.3	256.7	424.6	2,657.6	662.9	6,170.5
Raid								
Ant & Roach Killer	-	339.6	-	1,314.8	-	-	10.3	1,654.4
Raid Insecticide	-	-	-	-	-	4.6		14.9
Max Bug Barrier: Insecticides	-	700.7	3,119.0	723.1	1,989.0	3,519.5	70.8	10,122.1
Total Raid	-	1,040.3	3,119.0	2,037.9	1,989.0	3,524.1	81.1	11,791.4
Total 2011	2,622.0	2,550.8	7,036.9	3,059.3	4,383.3	10,136.5	1,373.6	31,162.3

Through the forecast period, S.C. Johnson's sales of insecticides and insect repellents will continue to rise with ongoing strong promotional support.

S.C. Johnson's sales of consumer insecticides and insect repellents are projected to show steady growth through the forecast period, reflecting annual population increases of about 1% per year and rising consumer awareness of insect-borne diseases, such as West Nile Virus. Sales should reach more than $402 million in 2016, an annual increase of approximately 5%.

Table 9-77: S.C. Johnson's Outlook for Consumer Pesticides and Insect Repellents, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	315.0	-
2016	402.0	5.0

THE SCOTTS MIRACLE-GRO COMPANY

OVERVIEW

The Scotts Miracle-Gro Company traces its roots to O.M. Scott & Sons, which was founded in 1868 by O.M. Scott in Marysville, OH, as a premium seed company for the U.S. agricultural industry. O.M. Scott & Sons focused on providing cost effective weed-free grass seeds to home gardeners. In 1928, O.M. Scott & Sons launched Turf Builder, the first fertilizer formulated specifically for lawns.

Beginning in the early 1990s, Scotts began an aggressive expansion campaign to diversify within the lawn and garden industry and gain market share, both domestically and internationally. In November 1992, the company purchased Republic Tool & Manufacturing Corp. of Carlsbad, CA. At the end of 1993, Scotts bought Grace/Sierra Horticultural Products of Milpitas, CA, another leading supplier of consumer and professional horticultural and turf-care products, which gave the company a worldwide presence.

Scotts' most important acquisition took place in 1995. Through an exchange of $195 million worth of equity, the company purchased Stern's Miracle-Gro Products Inc., a company which had been formed in Long Island, NY, by Horace Hagedorn and Otto Stern in 1951. The merger companies continued to be headquartered in Ohio.

The Scotts Company Ltd. (United Kingdom) was formed through the partial acquisition of Miracle Garden Care in 1996 and Levington Horticulture at the end of 1997. The head office of the U.K. Consumer Business Group is in Godalming, Surrey, and the head office of the U.K. Professional Business Group is in Bramford, near Ipswich, Suffolk. In 1997, the remaining interest in Miracle Garden Care was acquired.

The same year, Scotts acquired a minority interest (24%) in Emerald Green Lawns, a lawn-service company serving Midwest markets, and announced that it would be the base for establishing the new Scotts LawnService. Later, in October 1998, Scotts increased its equity to 84% in Emerald Green Lawns, and repositioned the business into the premium lawn and garden service segment. The business was renamed Scotts LawnService in 1999. Also in 1997, Scotts acquired an 80% interest in Sanford Scientific, which develops genetically engineered plants.

In 1998, Scotts began a series of international acquisitions in Europe. The company acquired Rhone-Poulenc Jardin (RPJ), the leading consumer lawn and garden business in France, Germany, Benelux, Austria, Italy, and Spain. The same year they acquired the ASEF consumer business, based in the Netherlands and Belgium. In 1998, Scotts also acquired Shamrock brand of U.K. and Irish peat products from Bord na Mona, Ireland which gave Scotts access to peat reserves and opportunity to supply Shamrock products in the European markets.

In 1998, in the United States, Scotts acquired the organics company EarthGro, Inc., the Northeast region's leading organic company. This acquisition strengthened the company's services to mass retailers, home centers, and independents in the Northeast region.

In fiscal 1999, the company acquired the Ortho brand from Monsanto, and exclusive rights to market and distribute the consumer Roundup product line to the lawn and garden market in the United States, the United Kingdom, and other selected countries. Monsanto continues to own the consumer Roundup business and provides significant input related to the marketing and sale of its brand. The Ortho acquisition and consumer Roundup agreement added industry-leading pesticides and herbicides to the company's product portfolio. The acquired product lines also included the Weed-B-Gon, Rose Pride, and Home Defense product lines in the United States; Green Cross, the leading consumer pesticide line in Canada; and the Defender line in Australia.

The company continued to grow its North American and European presence, while at the same time shedding its less profitable product lines. In 2000, the company sold the professional turf business to The Andersons Inc. and Nu-Gro Corp. for sales in the United States and Canada, respectively. Scotts kept its professional horticulture business. Also in 2000, the company gained worldwide distribution rights to the Shamrock Peat brand and bought the Substral fertilizer and plant care products from Henkel Group.

President and COO, James Hagedorn was named CEO in 2001; James, the son of Miracle-Gro founder Horace Hagedorn, retained the title of president. He assumed the additional role of chairman in 2003. In the fall of 2004, Scotts ventured into the gardening retail market with the acquisition of Smith & Hawken, paying $72 million for the high-end gardening retail chain. Horace Hagedorn died in early 2005. The Scotts Company changed its name to The Scotts Miracle-Gro Company in 2005. This name change was an effort to raise the profile of its consumer products business among investors.

In 2005, Scotts Miracle-Gro acquired the Rod McLellan Company, a maker of potting and gardening soil in the western United States, for about $20 million. Also in 2005, it spent $77 million to acquire Gutwein, whose line of Bird Song wild bird seed gave Scotts a foothold in a new market.

Scotts Miracle-Gro made two acquisitions in 2006 to strengthen its position in the global turfgrass seed industry. In May, it acquired certain brands and assets of Turf-Seed, Inc. The grass varieties are distributed throughout the European Union and other countries in the region. The June acquisition of selected brands and assets from Landmark Seed Company was complementary to the acquisition of Turf-Seed, Inc.

In March 2011, Israel Chemicals Ltd, an Israeli multinational fertilizer and specialty chemicals company, announced that they had completed the purchase of the Global Professional business segment from Scotts. The acquisition included the line of branded products including Osmocote, Sierrablend, and Peters Professional; a large sales and marketing force; R&D resources; as well as several factories and peat mines located in Holland, the U.K. and the U.S. The purchase price was $270 million.

BUSINESS STRATEGY AND OBJECTIVES

Scotts Miracle-Gro positions itself as a lawn and garden company that helps consumers succeed. The company's vision is to be the world leader in the consumer lawn and garden industry, and it has made great strides to fulfill this vision. Scotts Miracle-Gro leverages the strength of its brands as well as its merchandising and supply chain expertise for growth. Through acquisitions and internal product line extensions, Scotts Miracle-Gro has become the market leader in each of its major consumer lawn and garden categories in North America, France, the United Kingdom, and Germany.

In 2003, the company was reorganized into four reporting segments: North American Consumer, Scotts LawnService, Global Professional, and International Consumer. The company's major goals at that time were to further sales and market share growth in the International Consumer business; grow Scotts LawnService, a high-margin operation; and expand into new lawn and garden categories. The multi-year International Growth and Integration Plan was initiated in 2002. This pan-European enterprise resource planning system, combined with rationalization of the manufacturing operations, provided a more competitive advantage and enhanced profitability.

In 2009, the business segments were adjusted into Global Consumer, Global Professional, Scotts LawnService and Corporate & Other (primarily Smith & Hawken). Towards the end of 2009, Scotts announced its intention to cease operations of the Smith & Hawken business. All Smith & Hawken stores were closed.

With the sale of the Global Professional business in 2011, the company presently is divided into two reportable segments: Global Consumer, and Scotts LawnService. In the Global Consumer segment, the company manufactures and markets consumer lawn and garden products in the categories: Lawn Care, Gardening and Landscape, and Home Protection. The Scotts LawnService segment provides residential and commercial lawn care, tree and shrub care, and limited pest control services in the United States.

The Scotts LawnService unit has grown through both acquisitions and internal growth to about $236 million in 2011. It is the leading lawn care services company in the United States after TruGreen. The Global Consumer segment accounts for 89% of sales. Within the consumer market, the company's largest customers are The Home Depot (30% of sales), Lowe's (18% of sales), and Walmart (13% of sales). With the sale of the Global Professional business in 2011, the company began winding down its professional seed business in the U.S. By the end of 2012, the entire business portfolio of Scotts Miracle-Gro will be consumer oriented.

The company's research and development efforts address improvement of existing products, development of new products, as well as potential changes in manufacturing, packaging, and delivery systems. Scotts Miracle-Gro holds an 80% interest in Sanford Scientific, a research-oriented company that specializes in genetic engineering of plants.

Given that there have been necessary price increases in the past several years, the company has decided to protect the consumer from another year of price rises in 2012. Valuing the long-term health and growth of the business, the company does not intend to pass price increases on to the consumers, even though margins are pressured. The company's goal is to drive category growth by improving relationships with their customers and providing them with even better products, services, and advice to create beautiful and healthy landscapes.

SALES AND PROFITS

Scotts was a privately held company until January 31, 1992, when the company made a successful initial public offering of its stock. Scotts is currently publicly owned. Scotts entered the international market with the acquisitions of the Grace Sierra and Miracle Garden Care lines and has continued to make several European acquisitions. International sales represent approximately 18% of total sales in 2011.

Table 9-78: The Scotts Miracle-Gro Company's Corporate Sales, 2006 to 2011

	$ Million		%	
Year-a	**Net sales**	**Net income**	**Operating margin on sales**	**Return on equity**
2006	2,697.1	132.7	9.4	12.6
2007	2,472.9	113.4	11.5	14.5
2008	2,552.0	(10.9)	4.9	-
2009	2,746.7	153.3	9.4	30.0
2010	2,898.0	204.1	12.5	26.7
2011	2,835.7	167.9	8.7	30.0

a- Fiscal year ending September 30.

The company's sales declined in both 2010 and 2011. Key reasons for these declines included poor weather conditions in the United States; economically stressed consumers; and lower sales through the mass merchant channel due to changes in retail merchandising strategies.

Table 9-79: The Scotts Miracle-Gro Company's Sales by Business Segment, 2011

Business segment	$ Million	% Of total
Global Consumer	2,533.2	89.3
Scotts LawnService	235.6	8.3
Corporate (and other)	67.7	2.4
Roundup amortization	(0.8)	-
Total	**2,835.7**	**100.0**

U.S. sales of consumer and lawn pesticides in 2011 account for an estimated $2,080.0 million, or 82% of overall sales. The rest of the sales are attributed to sales in Canada and Europe, among others.

CONSUMER PESTICIDES AND FERTILIZERS

The Scotts Company is credited by most of today's industry players with creating the consumer lawn fertilizer market. The company introduced the first home lawn fertilizer, Scotts Turf Builder, in 1928, and the first selective weed control and fertilizer combination product in 1947. Scotts continued its growth in the lawn and garden market with its 1988 acquisition of Hyponex, the largest U.S. supplier of bagged soils and bark. Hyponex was the only supplier with a nationally recognized brand of such products. In 1995, Scotts acquired Stern's Miracle-Gro, the leader in garden fertilizers with a focus primarily on controlled release formulations. To assume the leading role in all lawn and garden categories, Scotts obtained global marketing rights to Roundup in 1998 and acquired the leading consumer lawn and garden pesticide brand, Ortho, in 1999. In 2003, Walmart named Scotts the "Supplier of the Year," an indicator not only of the close relationship between the two but also of the high standing of Scotts with the consumer.

The products and activities of the key business groups of the North American Consumer Business Segment are described below.

Global Consumer

In the Global Consumer segment, Scotts manufactures and markets consumer lawn and garden products in the categories: Lawn Care, Gardening and Landscape, and Home Protection.

The Lawn Care category includes fertilizer products under the Scotts and Turf Builder brand names. The category has grass seed products under the brands: Scotts, Turf Builder, EZ Seed, Water Smart, and PatchMaster. It has lawn-related weed, pest and disease control products primarily under the Ortho, Scotts, and Lawn Pro brand names including sub-brands such as EverGreen, Fertiligene, Substral, Miracle-Gro Patch Magic, Weedol, Pathclear, KB and Celaflor. The Lawn Care category also includes spreaders and other durables under the Scotts brand name, including the Turf Builder Edgeguard Spreaders, Snap spreaders, Accugreen drop spreaders, and Handy Green II handheld spreaders. The Lawn Care category of Scotts focuses on helping consumers obtain and enjoy the lawn they want.

The Gardening and Landscape category of Scotts aims to help consumers grow and nurture flower and vegetable gardens and beautify landscaped areas. This category includes a complete line of water soluble plant foods under the Miracle-Gro brand sub-brands such as LiquaFeed; continuous-release plant foods under the Osmocote and Shake 'N Feed brand names; potting mixes and garden soils under the Miracle-Gro, Scotts, Hyponex, Earthgro, and Supersoil brand names. The category has mulch and decorative groundcover products under the Scotts brand including the sub-brand Nature Scapes; landscape weed protection products under the Ortho brand; plant-related pest and disease control products under the Ortho brand; wild bird food and bird feeder products under the Scotts Songbird Selections, Morning Song, and Country Pride brand names; and organic garden products under the Miracle-Gro Organic Choice, Scotts, and Whitney Farms brand names. Similar products are marketed internationally under the brand names: Miracle-Gro, Fertiligène, Substral, KB, Celaflor, ASEF, Scotts, Morning Melodies, Scotts EcoSense, Fertiligène Naturen, Substral Naturen, KB Naturen, Carre Vert and Miracle-Gro Organic Choice.

The Home Protection category focuses on helping consumers protect their homes from pests and maintain external home areas. The insect and rodenticide products are marketed under the Ortho brand name, including insect control products under the Ortho Max and Bug-B-Gon Max sub-brands and rodenticides under the Home Defense Max sub-brand. The category's weed control products for hard surfaces are marketed under Ortho brand name, and non-selective weed control products under the Roundup brand name. These products are internationally marketed under the brands: Nexa Lotte, Fertiligène, KB, Home Defence, Weedol, Pathclear and Roundup.

Scotts LawnService

The Scotts LawnService business segment provides services for residential and commercial lawn care, tree and shrub care, and limited pest control through periodic applications of fertilizer and control products. The company claims to have the second largest market share in the fragmented U.S. lawn care service market, after TruGreen, a division of ServiceMaster.

Table 9-80: Scotts Miracle-Gro's Estimated U.S. Sales OF Pesticides and Related Products to Consumer Markets by Product Category, 2011

Product category	$ Thousand	% Of total
FERTILIZERS		
Lawn	624,574	30.0
Garden	221,398	10.6
Houseplant	53,602	2.6
Total	899,574	43.2
BAGGED SOILS		
Topsoil	124,,282	6.0
Potting soil	195,208	9.4
Total	319,490	15.4
INSECTICIDES		
Outdoor	209,745	10.1
Indoor (houseplant)	58,263	2.8
Total	268,008	12.9
AMENDMENTS/MULCHES		
Peat	128,815	6.2
Lime	36,805	1.8
Bagged bark	18,400	0.9
Perlite/vermiculite	3,680	0.2
Other-a	1,842	0.1
Total	189,542	9.2
HERBICIDES		
Lawn	69,915	3.4
Garden/Nonselective-b	23,305	1.1
Total	93,220	4.5
FUNGICIDES	23,305	1.1
OTHER-c	286,863	13.8
TOTAL	**2,080,000**	**100.0**

a- Includes limestone, gypsum, sand, charcoal, and other products.
b- Excludes Roundup sales that had previously been reported. Roundup is now on an agency agreement, and Scotts receives a commission on sales.
c- Includes U.S. grass seed, lawn spreaders and all Canada consumer sales.

MARKETING POLICIES

Scotts Miracle-Gro believes that consumers need the lawn and garden-care advice that they previously obtained from smaller retailers and nurseries. Through advertising support and promotion, they are trying to fill this gap by educating consumers about the need to apply lawn fertilizer more often, the advantages of garden fertilizers, and how to deal with all types of pest control.

The company has undertaken several strategic initiatives to provide improved service and to strengthen relationships with customers and while at the same time enhancing the company's profitability. Strong relationships with key retailers are important in Scotts Miracle-Gro's business strategy, and they are reflected in the company's marketing approach. Scotts Miracle-Gro established business development teams at each of its four largest customers to work with their buyers and supply chain management teams, thereby maximizing mutually beneficial sales opportunities.

Under the marketing agreement for Roundup, Scotts Miracle-Gro and Monsanto are jointly responsible for developing global consumer and trade marketing programs for consumer formulations of Roundup. Scotts Miracle-Gro has responsibility for sales support, merchandising, distribution, and logistics for Roundup. Monsanto continues to own the consumer Roundup business and provides significant oversight of its brand. In addition, Monsanto continues to own and operate the agricultural Roundup business.

Scotts Miracle-Gro is compensated under the marketing agreement based on the success of the consumer Roundup business in the markets covered by the agreement. Scotts Miracle-Gro receives a graduated commission to the extent that the earnings before interest and taxes of the consumer Roundup business in the included markets exceed specified thresholds. Regardless of these earnings, Scotts Miracle-Gro is required to make an annual contribution payment against the overall expenses of the Roundup business..For fiscal 2006, and until 2018, or the earlier termination of the agreement, the minimum annual contribution payment will be $20 million.

If Monsanto terminates the marketing agreement upon a change of control of Monsanto or the sale of the consumer Roundup business, Scotts Miracle-Gro will be entitled to a termination fee that varies by program year. The termination fee is calculated as a percentage of the value of the Roundup business exceeding a certain threshold, but in no event will the termination fee be less than $16 million or in excess of $100 million. Monsanto may also be able to terminate the marketing agreement within a given region, including North America, without paying a termination fee if unit volume sales to consumers in that region decline: (1) over a cumulative three-fiscal-year period; or (2) by more than 5% for each of two consecutive years.

Scotts Miracle-Gro sells its products through a wide variety of retailers including home centers, mass merchandisers, warehouse clubs, large hardware chains, independent hardware stores, nurseries, garden centers, and food and drug stores. In the U.S., the company operates regional sales and marketing offices in the North, the Southeast, the Southwest and the West. The regional offices focus on understanding and meeting the needs of the local consumers, and increasing their participation rate in the lawn and garden activities. The headquarters in Marysville, OH supports the regional offices with programs and services designed to attract more consumers, enhance support to retailers, and drive innovation in products, services, programs and operations to accelerate the category growth.

Scotts product development and marketing efforts are largely focused on innovation and differentiation of products, and continuously increasing brand and product awareness to inspire consumers and create retail demand. Relationship with the retailers is an important marketing strength of Scotts Miracle-Gro. The company runs cooperative advertising programs with the retailers, offering in-store promotional allowances and rebates based on sales volumes. Scott provides training as well as educational and promotional support to independent retailers. The company also monitors consumer buying habits at the retail level and shares these trends with its retailers to be able to adjust product mix that is in-season. Scotts Miracle-Gro aligned its internal data systems with those of its retailers, so the company is therefore better able to track sales, spot changes in sales trends, and refill inventory.

Scotts Miracle-Gro relies heavily on advertising to influence the consumer decision making of lawn and garden products. Scotts Miracle-Gro spends approximately 4-5% of annual net sales on advertising to support and promote products and brands. The company is expected to have a similar commitment to advertising and marketing investment in the future. In the U.S., four out of five advertisement messages for lawn and garden products come from Scotts Miracle-Gro, helping the company be the favored player in the lawn and garden retail market. The company continually explores new and innovative ways to communicate with the consumers.

The company invests substantial resources in advertising, consumer promotions and other marketing activities in order to maintain, extend and expand the brand image. Scotts Miracle-Gro advertises its branded products through national and regional media and through cooperative advertising with retailers. Retailers are also offered preseason stocking and in-store promotional allowances. Certain products are also promoted with direct consumer rebate programs.

In addition to advertising and in-store sales support, Scotts Miracle-Gro uses a variety of other promotional tools. The company offers sales incentives through various programs, consisting principally of volume rebates, cooperative advertising, consumer coupons and other trade programs.

The company's national toll-free consumer helpline is staffed by "lawn and garden consultants," many of who are Scotts retirees with agronomic training and an average of 20 years of experience with the company. The customer service consultants have access to a computerized database of turf, weed, and related information organized by zip codes, which enables them to respond appropriately to calls from different regions. This service has been a tremendous success for the company and has been expanded to the Internet. The company's website provides an alternative to the telephone helpline, and consumers can get product information and gardening tips for their specific geographic area at www.scotts.com.

The number of lawn owners who want to maintain their lawns and gardens, but do not want to do it themselves represents a significant portion of the total market. Scotts recognized that its portfolio of well-known brands provides a unique ability to extend its business into lawn and garden services, and the strength and recognizibility of its brands provides a significant competitive advantage in acquiring new customers. The company has spent the past several years developing the Scotts LawnService business model. The business has grown significantly from $42 million in revenue in fiscal 2001 to $236 million in revenue in fiscal 2011. This growth has come from geographic expansion, acquisitions, and organic growth fueled by the company's highly effective direct marketing programs.

The next major step in the company's strategy will be to focus on marketing and advertising plans. In the fiscal year 2012, the company's marketing and advertising investments are expected to increase by up to $40 million. The company intends to launch new campaigns, have improved in-store communications, and also focus on the use of social media for advertising. The company is also putting in place improved analytical programs to assess the effectiveness of the marketing efforts and help make improvements. The long term focus of the increased marketing efforts to increase consumer engagement with the company brands and services.

ADVERTISING

Scotts advertising expenditures are spent on four main brands; Miracle Gro, Ortho, Osmocote and Scotts. The TME for 2010 decreased from $75.7 million in 2009 to $35.3 million. The majority of the advertising expenditures were for the Miracle-Gro which amounted to $15.1 million. Network TV and Spot TV ads were the most popular advertising methods. In 2011, the TME decreased further to $ 25.4 million. Once again, the Miracle-Gro brand had the highest expenditure, totaling $13.6 million. Likewise, Network TV and Spot TV as well as Cable TV were the most popular advertising formats.

Table 9-81: Scotts Miracle-Gro's Traceable Media Expenditures for Consumer Products, 2010 and 2011

	$ Thousand								
Product	**Network TV**	**Spot TV**	**Syndi-cated TV**	**Cable TV**	**Maga-zines**	**News-papers**	**Radio**	**Inter-net**	**Total**
2010									
Miracle-Gro									
Fertilizer & Treatments	-	-	-	-	206.1	-	-	-	214.4
Garden Soil	3,222.3	717.7	795.2	1,043.7	91.1	-	-	8.3	5,878.3
Shake N Feed Plus Weed Preventer Plant Food	-	-	-	-	-	6.7	-	-	6.7
Garden Care Products									
Lawn & Garden Products	-	-	-	35.5	-	-	-	-	35.5
Garden Soil									
Garden Soil & Shake N Feed Weed Preventer: Combo	-	-	-	-	62.5	-	-	-	62.5
Liquafeed									
Plant Food System	3,372.2	2.6	592.8	689.7	-	-	-	-	4,657.3
Vignette	-	-	-	48.6	-	-	-	-	48.6
Advanced: Plant Feeding System & Ortho Max Pesticide: Combo	-	-	-	-	268.6	-	-	-	268.6
Organic Choice									
Garden Soil & Plant Food	-	-	-	-	130.2	-	-	-	130.2
Plant Food	2,074.4	12.3	1,295.4	467.9	-	-	-	-	3,850.0
Total Miracle-Gro	8,668.9	732.6	2,683.4	2,285.4	758.5	6.7	-	8.3	15,143.8
Ortho									
Bug-B-Gon Max: Pesticide	-	1,301.9	-	-	-	-	-	-	1,301.9
Home Defense Max:									
Indoor/Outdoor Pest Control	835.7	1,684.6	662.0	2,208.9	-	-	-	-	5,391.2
Mouse Trap	1,151.1	2.4	459.1	932.7	-	-	-	38.0	2,583.3
Max: Fire Ant Killer	-	-	-	-	-	-	-	0.8	0.8
Weed B Gon Max:									
Herbicide	691.8	0.2	512.9	1,450.0	-	-	-	-	2,654.9
Vignette	-	-	-	3.3	-	-	-	-	3.3
Total Ortho	2,678.6	2,989.1	1,634.0	4,594.9	-	-	-	38.8	11,935.4
Osmocote									
Plant Food	-	-	-	-	23.4	-	-	-	23.4
Plus: Fertilizer	-	-	-	-	-	-	-	4.2	4.2
Total Osmocote	-	-	-	-	23.4	-	-	4.2	27.6

(Continued)

Table 9-81: Scotts Miracle-Gro's Traceable Media Expenditures for Consumer Products, 2010 and 2011									
	$ Thousand								
Product	**Network TV**	**Spot TV**	**Syndi-cated TV**	**Cable TV**	**Maga-zines**	**News-papers**	**Radio**	**Inter-net**	**Total**
2010 (Continued)									
Scotts Brand									
Fertilizers & Treatments	-	-	-	-	-	93.0	-	-	93.0
Green Max: Fertilizer	-	-	-	-	-	120.1	-	-	120.1
GrubEx: Pest Control	-	-	-	-	-	22.2	-	-	22.2
Lawn Pro									
Fertilizer	-	-	-	-	-	-	-	4.6	4.6
Fertilizers & Treatments	-	8.6	-	-	-	-	-	-	8.6
Snap: Fertilizers & Spreader	-	70.0	-	-	-	-	42.6	-	112.6
Turf Builder	-	-	-	-	-	-	-	-	-
Fertilizer	-	4,330.8	-	9.6	-	9.8	-	0.8	4,351.0
Water Smart: Fertilizers & Lawn Food	-	-	-	-	-	-	-	4.6	4.6
Turf Builder/Winter Guard: Fertilizer	-	3,462.8	-	79.3	-	-	-	-	3,542.1
Total Scotts	-	7,872.2	-	88.9	-	245.1	42.6	10.0	8,258.8
2010 Total	11,347.5	11,593.9	4,317.4	6,969.2	781.9	251.8	42.6	61.3	35,365.6
2011									
Miracle-Gro									
Fertilizer & Treatments	-	-	-	-	-	-	-	338.7	338.7
Garden Soil	2,177.4	636.1	448.3	1,650.2	-	-	-	-	4,912.0
Expand N Gro:									
Plant Food	-	-	-	-	-	-	-	55.6	55.6
Planting Mix	-	798.2	-	-	-	-	-	289.6	1,087.8
Liquafeed									
Plant Food System	1,352.6	1.5	508.6	1,514.8	-	-	-	-	3,377.5
Moisture Control: Garden Soil	-	-	-	-	-	-	-	23.0	23.0
Shake/ Feed/Weed Preventer: Plant Food	1,770.9	12.6	571.7	797.5	-	-	-	-	3,152.7
Turf Builder/Halts: Crabgrass preventer	-	97.4	-	-	-	-	-	-	97.4
Turf Builder/Winter Guard: Fertilizer	61.6	1.3	126.8	443.6	-	-	-	-	633.3
Yankee Stadium Fertilizer & Grass Seed: Fertilizers & Grass Seeds	-	-	-	-	-	-	-	3.3	3.3
Total Miracle-Gro	5,362.5	1,547.1	1,655.4	4,406.1	-	-	-	710.2	13,681.3

(Continued)

Table 9-81: Scotts Miracle-Gro's Traceable Media Expenditures for Consumer Products, 2010 and 2011

	$ Thousand								
Product	**Network TV**	**Spot TV**	**Syndi-cated TV**	**Cable TV**	**Maga-zines**	**News-papers**	**Radio**	**Inter-net**	**Total**
Ortho									
Home Pest Controls	-	-	-	-	-	-	-	0.1	0.1
Household Insecticide	-	-	-	-	-	-	-	0.0	0.0
Pest Control	-	-	-	-	-	-	-	87.2	87.2
Various Pesticides	-	-	-	-	-	108.0	-	-	108.0
Bug B Gon Max: Pesticides	-	0.7	-	-	-	-	-	0.4	1.1
Groundclear: Weed Killer	-	370.8	3.4	-	-	-	-	0.4	374.6
Home Defense Max:									
Indoor/Outdoor Pest Control	1,516.8	600.6	66.9	1,838.7	-	-	-	-	4,023.0
Mouse Trap	-	623.8	-	-	-	-	-	-	623.8
Vignette	-	-	-	11.1	-	-	-	-	11.1
Max:	-	-	-	-	-	-	-	-	-
Fire Ant Killer	-	-	-	-	-	-	-	55.5	55.5
Lawn Insect Killer	-	-	-	-	-	-	-	6.7	6.7
Weed B Gon:	-	-	-	-	-	-	-	-	-
Herbicide	-	-	-	-	-	-	-	0.2	0.2
Max: Herbicide	-	858.2	-	-	-	-	-	47.4	905.6
Total Ortho	1,516.8	2,454.1	70.3	1,849.8	-	108.0	-	197.9	6,196.9
Osmocote									
Plant Food	-	-	-	-	62.9	13.4	-	12.3	88.6
Total	-	-	-	-	62.9	13.4	-	12.3	88.6
Scotts Brand									
Fertilizer	-	-	-	-	-	10.6	-	-	10.6
Fertilizer & Treatments	-	-	-	-	-	6.9	-	-	6.9
Bonus S: Fertilizer	-	-	-	-	-	-	-	5.3	5.3
GrubEx: Pest Control	-	-	-	-	-	-	-	1.7	1.7
Lawn Pro: Fertilizers & Treatments	-	6.7	-	-	-	-	-	-	6.7
Nature Scrapes	-	-	-	-	-	-	-	-	-
Mulch	-	1,035.4	-	-	-	-	-	-	1,035.4
Advanced: Mulch	-	54.3	-	-	-	27.1	-	-	81.4
Snap: Fertilizers & Spreader	-	847.7	-	-	-	-	-	2.0	849.7
Turf Builder: Fertilizer	180.0	3,158.4	-	58.4	-	-	-	66.0	3,462.8
Turf Builder Water Smart: Fertilizers & Lawn Food	-	-	-	-	-	-	-	11.1	11.1
Total Osmocote	180.0	5,102.5	-	58.4	-	44.6	-	86.1	5,471.6
2011 Total	7,059.3	9,103.7	1,725.7	6,314.3	62.9	166.0	-	1,006.5	25,438.4

NOTE: Totals may not add due to rounding.

FACILITIES

The corporate headquarters located in Marysville, OH, own or lease around 750 acres of facility. In addition to the manufacturing, distribution, and R&D facilities in Marysville, the company leases office space for sales, marketing and general operating activities, as well as warehouse space throughout North America and continental Europe as needed.

The Global Consumer business segment in North America uses the company's headquarters; two research facilities located in Apopka, FL, and Gervais, OR; and production facilities in Pearl, MS and Fort Madison, IA. The company leases a spreader and durable components manufacturing facility in Temecula, CA. In addition, Scotts Global Consumer business operates 29 stand-alone growing media facilities in North America, 24 of which are owned by the company and five of which are leased. Most of these facilities include production lines, warehouses, offices and field processing areas. The company also leases a fertilizer and growing media manufacturing facility and distribution center in Orrville, OH. The company owns four production facilities for the wild bird food operations in Indiana, South Dakota, South Carolina and Texas. It owns a grass seed blending and bagging facility in Albany, OR. The North American Consumer Segment leases additional sales offices in Atlanta, GA, Troy, MI, Wilkesboro, NC, Rolling Meadows, IL, and Bentonville, AR. Scotts Miracle-Gro also maintains working relationships with extension personnel at several universities.

Scotts LawnService business segment leases facilities, primarily located in industrial parks, for each of the 83 company-operated Scotts LawnService locations.

The company leases facilities for its international business in Ecully, France. It owns a blending and bagging facility for growing media in Hautmont, France and a plant in Bourth, France that is used for formulating, blending and packaging plant protection products. The company owns four manufacturing facilities in the U.K.at Howden (East Yorkshire), Hatfield (South Yorkshire), Gretna Green (Gretna) and Sutton Bridge (Spalding). It owns three peat extraction facilities in Scotland and leases land for peat extraction at two additional locations across the United Kingdom. The company leases research and development facilities in Morance (Rhone), France and Cobbitty (NSW), Australia, and owns a research and development facility in Levington (Ipswich), U.K.

Scotts employed approximately 6,300 full-time employees in 2011. During peak sales and production periods, the company employed approximately 9,000 employees, including seasonal and temporary labor.

OUTLOOK

Scotts Miracle-Gro had strong sales and earnings from 2005 to 2009, but sales have declined in the last two years. Scotts was named "Supplier of the Year" in the lawn and garden category by Home Depot and Walmart in the United States, and by B&Q in the United Kingdom, recognitions that will allow the company to further strengthen its existing supply agreements. The company also provides excellent service to independent retailers, thereby increasing their reliance on Scotts' diverse branded products. The company has comprehensive plans to continue growth in its various segments.

Scotts Miracle-Gro has reexamined its strategies in 2011 in light of the challenges faced in the last two years, and incorporated changes and adjustments to attain greater category growth and market share. Kline forecasts 4% top line growth in both the Consumer and Scotts LawnService segments, on the basis of growth supported by expected normal weather; increased commitment to marketing and media; and innovation and modest net pricing.

The company also plans to reinstate some form of variable compensation for over 1,800 associates who participate in incentive programs globally in 2012. The company is budgeting $30 to $35 million for this expenditure.

Scotts Miracle-Gro expects benefit from shares repurchased during fiscal 2011. The company expects to moderate share purchase activity in fiscal 2012 in the context of the broader capital deployment strategy. In the long-term, the company plans to target one-third of its operating cash flow for return to shareholders, including dividends, with the remaining two-thirds targeted to fund capital expenditures for organic as well as acquisitive growth.

Scotts Miracle-Gro's net sales are expected to grow at about 4% for the next five years.

Table 9-82: The Scotts Miracle-Gro's Outlook for Pesticides and Fertilizers, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	2,080.0	-
2016	2,530.6	4.0

SENORET CHEMICAL CO.

OVERVIEW

Senoret Chemical Co., Inc., of St. Louis, MO, was started in 1892 and for many years, focused on ant control products sold under its Terro brand. Following its 1998 acquisition by two private investor groups from St. Louis, Senoret expanded with experienced management and sales personnel. The company also added new product lines for the control of mosquitoes, rodents, and deer. Its portfolio now also includes Sweeney's rodent control products and Deer Fortress deer repellent. As of April 2012, Senoret was acquired by Woodstream Corporation, and will operate as a subsidiary.

SALES AND PROFITS

Senoret Chemical Company is privately held and releases limited financial information. Total sales are estimated at $32 million in 2011. Consumer insecticides account for approximately $22.3 million, or about 70% of total sales, while rodent control products account for 20% and deer and small animal repellents comprise the remaining 10%. All sales are made to consumers, with no products specifically branded for professional sale. The company also does not engage in contract manufacturing for third parties.

CONSUMER PESTICIDES AND FERTILIZERS

Consumer insecticide products offered by Senoret are all in the Terro line and include moth traps, spider and insect traps, perimeter ant bait, weather resistant perimeter bait, mosquito repellent, fruit fly traps, spider killer spray, multi-purpose insect baits, liquid ant killers and baits, ant killer sprays, outdoor ant killer sprays, ant dusts, carpenter and ant and termite aerosols and killers, and outdoor ant killer shaker bags.

Consumer rodent control products offered under the Sweeney's brand include Poison Peanuts, Repellent Spray, Repellent Shaker Bag, Mole Trap, Gopher Trap, and Sonic Spikes, as well as the Bait Bar, Bait Pack, and Bait Block for mice and rats.

In 2007, Senoret acquired Deer Fortress. The stakes are an all-natural scent-based product that triggers the deer's flight response to danger, thereby repelling unwanted deer. Senoret now sells the acquired Deer Fortress products under its Animal repellents category along with other repellents for snakes, dogs and other smaller animals.

In 2008, Senoret launched All Out Deer & Rabbit Repellent. It is EPA registered, organic product for use around ornamental plants, flowers, and shrubs.

Table 9-83: Senoret Chemicals' U.S. Sales Of Pesticides and Related Products to Consumer Markets by Product Category, 2011

Product category	$ Thousand	% Of total
Insecticides	22,300	70
Rodenticides	6,500	20
Animal repellents	3,200	10
Total	**32,000**	**100**

MARKETING POLICIES

Senoret's products are marketed using in-house sales staff, lawn distributors, and garden distributors. The company employs nine in-house sales staff in addition to about 80 manufacturers' representatives. Approximately half of the company's sales are made through brokers and distributors, with the other half made directly to retail.

Retail distribution is broad, with products available nationwide through leading food stores such as Albertson's; drug chains like Long's, Walgreen's, Eckerd, and Rite-Aid; mass merchandisers such as Walmart and Kmart; hardware stores including Ace, True Value, and Sears, and home centers such as Home Depot.

A small portion of sales are also made through the company's websites, www.terro.com and www.wrsweeney.com,, which offer online ordering, store locators, answers to frequently asked pest control problems and fun features for consumers, such as Sweeney's "I hate moles because..." contest. Their products can also be found on websites such as Amazon.com and Outdoorsemporium.com.

In 2010, Senoret was the recipient of a $2 million dollar low interest loan to purchase updated packaging machinery.

ADVERTISING

There was no TME reported in 2011, but Senoret has expanded internet and mobile access for its consumer market. In addition, Senoret engages in trade promotion through direct mail to lawn and garden stores, attendance at trade shows, and some limited advertising in trade magazines. It promotes to consumers primarily through a local radio show offering advice on how to handle ant infestations.

Mobile marketing techniques include interactive voice response on mobile phones, ringtones and sending bulk text messages (short message services).

FACILITIES

Senoret operates in a single facility in St. Louis, MO, and employs between 20 and 50 with about 25 being non-seasonal employees.

OUTLOOK

Senoret Chemical Company was acquired by Woodstream Corporation in April 2012. Future prospects will be included in the Woodstream profile.

SERGEANT'S PET CARE PRODUCTS

OVERVIEW

Sergeant's Pet Care Products, Inc. is one of the oldest manufacturer and marketer of pet supplies. The company was founded in Richmond, VA, in 1868 by Polk Miller, who developed its early products and sold them under the Sergeant's brand directly to drugstores. The family business was sold in 1919 and renamed Polk Miller Products Company until 1967, when it was purchased by A.H. Robins Company (which itself was acquired by pharmaceutical giant Wyeth). Sergeants offers a wide range of pet products including flea and tick products, health care, treats, toys, grooming items, and accessories, as well as small animal, bird, and fish products.

In 1989, ConAgra acquired the Sergeant's Pet Care division from Robins and combined it with its Geisler small animal and bird products and the Atlantis fish line to become Sergeant's Pet Products Inc. Sergeant's was subsequently purchased by an investment firm, Sowell & Company, in 2000 and was renamed Sergeant's Pet Care Products, Inc. In 2000, the company became independent and is now fully owned by officers of the company. In 2001, Sergeant's acquired the Pet Life Foods pet treats business. Sergeant's relocated its headquarters to Omaha, Nebraska following the acquisition in the same year. In 2004, Sergeant's acquired Sun Pet Toys to complete their product offerings for pets.

In 2005, the company introduced several new insecticide products including Silver Squeeze-On for Cats and Kittens, Gold Squeeze-On for Cats and Petsations Naturals Shampoos. These products broaden Sergeant's Silver and Gold Squeeze-On lines, further establishing the company as a leader in squeeze-on OTC products.

In 2008, Sergeant's increased their dedication to fish health and maintenance through two important acquisitions lately: the consumer brands division of Virbac Corporation, including the Mardel line, and the Aquarium Products brand from Interpet. The brands and technology acquired provide unique and proprietary pet care items that include internal and external health care products, dental solutions, in addition to the expansive aquatic line.

In 2009, Sergeant's Pet Care Products, Inc. acquired Chomp, Inc., a manufacturer of all-natural dog and cat treats and supplements with a wide national distribution network.

In 2011, Sergeant's acquired the rights to a patented pest-control formula from Sumitomo Chemical Co. of Japan. This entitled Sergeant's to the manufacturing and sale of the spot-on pesticidal composition combining fipronil with an insect growth regulator such as methoprene or pyriproxyfen.

Sergeant's now markets more than 400 products to consumers. Along with flea/tick products, the company also sells pet accessories such as grooming products and pet toys under the Sergeant's brand, as well as pet health care products including nutraceuticals, Uncle Sam's and Old West pet treats, Geisler bird and small animal products, and Atlantis fish products.

SALES AND PROFITS

Sergeant's sales are estimated at $88 million in 2011, all of which are to consumer markets. Approximately 90% of sales are within the United States. Insecticides are estimated to make up about one-fourth of the company's sales, corresponding to $22 million. About 65% of sales are made directly to retailers. The company does not conduct any contract manufacturing of consumer pesticides.

CONSUMER PESTICIDES AND FERTILIZERS

Pet insecticides are marketed by Sergeant's Pet Products mostly under the Sergeant's label, with Bansect and PreTect offered as secondary brands.

Sergeant's PreTect line offers a broad range of flea and tick control products with powders, shampoo, squeeze-on formulations, on-pet spray, household spray and fogger, collars, and carpet spray and powder. Sergeant's led the market as the first to offer squeeze-on over-the-counter (OTC) products. In recent years, consumers have shown strong acceptance of flea/tick products containing insect growth regulators (IGRs), which prevent maturation of developing insects. IGRs are considered safer products than conventional insecticides while being highly effective. Sergeant's Pretect products contain nylar, a long residual IGR. The line also contains insecticide for adult control, with the exception of the squeeze-on product for cats, which contains nylar only. Sergeant's Pretect Flea and Tick Shampoo for Cats and Kittens (pyrethrum plus nylar) and Sergeant's Pretect Flea and Tick Shampoo for Dogs and Puppies (permethrin plus nylar) contain an insecticide plus nylar. The insecticide controls adult fleas and the IGR prevents new infestations for 30 days after treatment.

Sergeant's Bansect line is limited to Bansect Squeeze-On for Dogs (permethrin) and Bansect Flea & Tick Collar for dogs and cats. The company voluntarily withdrew its naled (organophosphate) products from the market in 2002.

Sergeant's Sentry Flea and Tick Shampoo is a gentle shampoo, with permethrin as its active ingredient. This shampoo provides residual action that controls fleas and ticks for up to ten days. SentryPRO Squeeze-On Flea and Tick Control provides superior protection from fleas, ticks, flea eggs, and mosquito bites, while Sergeant's SentryPRO Squeeze-On Flea and Tick for Dogs and Puppies is a premium squeeze-on and offers one-step double protection by killing both the adult fleas and ticks as well as flea eggs. With every application, flea larvae and eggs are prevented from developing into adults for up to 120 days. The active ingredients in this product are nylar and permethrin.

The Sergeant's line also includes Sergeant's Dual-Action Flea & Tick Collar (propoxur, fenothrin) for dogs and cats, Sergeant's Skip Flea & Tick Shampoo for Cats (pyrethrins), and Skip Flea & Tick Shampoo for Dogs. These products kill and control fleas for up to 10 days, also killing ticks that may carry Lyme disease. In June 2007, Sergeant's introduced new and improved Skip-Flea & Tick Shampoo for cats. The pH-balanced luxury shampoo is now enriched with coconut conditioners and a coconut-berry fragrance. The coconut conditioners build body and luster in a cat's coat and the scent is pleasing for both cats and owners.

The recently acquired products from Virbac include Zema for flea and tick collars, WormX for treatment of roundworms, hookworms, and tapeworms, and PetRelief Dermatological Shampoos and Sprays.

Natural products are also an area new product activity. In March 2006, Sergeant's launched a new set of natural flea, tick, and mosquito control products called Sentry Natural Defense. The line is the first natural product formulation from a major manufacturer clinically shown to kill or repel high percentages of insects within the first 24 hours with efficacy comparable to leading conventional products. Two months later, the company added another natural product, Sergeant's Nature's Guardian, to kill and repel pests like fleas, ticks, and mosquitoes on dogs and cats using botanical extracts. The products were licensed from EcoSMART Technologies, whose natural formulas are based on plant oils which are approved by the US FDA as direct food additives.

Other new product launches focus on fast action. In February 2007, the company launched SentryPro XFC Flea and Tick Squeeze-On for Dogs, a fast-acting flea and tick control product formulated to kill fleas in as little as one hour, ticks in three hours, and control re-infestation for up to nine weeks. In May 2007, Sergeant's introduced Sergeant's Gold Flea and Tick Squeeze-On for Dogs, a fast-acting flea and tick control product formulated to kill fleas in one hour, ticks in three hours, and control re-infestation for up to nine weeks. The products, available over the counter, had been in development for eight years and six years, respectively.

In 2011, the company launched a generic equivalent of the Frontline in Sergeant's Pet Care Products under the name FiproGuard. Fiproguard is a less expensive version with the same active ingredient as Frontline Top Spot, aimed at the same effectiveness and safety profile more economically.

MARKETING POLICIES

Sergeant's pet products are marketed throughout the United States and internationally. In the United States, company sales representatives and manufacturers' representatives sell the products. Pet insecticides are sold in supermarkets such as Albertson's, drugstores such as Long's, Walgreen's, Eckerd, and CVS, mass merchandisers including Walmart, wholesale clubs, and pet stores.

The company continues to sponsor a wide range of promotional activities to raise awareness of its products. In June 2009, for example, it teamed with Celebrity Dog Trainer Tamar Geller for the Sergeant's "Bad Dog Photo Contest." Participants uploaded images of their "bad dogs" in action or the aftermath of "bad dog" behavior to www.sergeants.com. Winners received cash prize along with pet products.

The company launched a new consumer-focused interface at www.sergeants.com in 2009. The site provides detailed information about Sergeant's full line of products, including flea and tick control for dogs and cats, pet grooming products, toys, and treats. The new site also provides consumers with a variety of useful information on pet health and pet care.

In February 2008, Sergeant's announced a cause marketing partnership with the National Wildlife Federation (NWF) to co-brand and market Sergeant's Nature's Guardian natural flea and tick control products, Sergeant's Nature's Guardian health care products and the NWF's Protected Wildlife Plush Toys. The partnership will include co-branding and marketing of these three lines in which the NWF logo will appear on all products and a portion of the proceeds will support the NWF's conservation programs. According to the 2007 Cone Agency Cause Evolution Survey, 87% percent of consumers will switch from one brand to another that is about the same in price and quality, if the other brand is associated with a cause.

Sergeant's Pet Care Products launched a new consumer-focused website, www.sergenats.com, including a variety of useful information on pet health and pet care in addition to detailed information about its full line of products, including flea and tick control for dogs and cats, pet grooming products, toys and treats.

Sergeant's Pet Care Products recently launched a Pet Health Central Blog to provide a exciting online destination for pet lovers to meet each other, interact with experts, and read inspiring and sometimes entertaining stories about pets. This blog will also deliver each post to the nearly 250,000 fans on the Pet Health Central Facebook fan page. The blog features writers from a variety of perspectives related to pets.

ADVERTISING

The company primarily promotes brands that feature proprietary technology, primarily flea and tick and health care products under both the Sergeants and Sentry brands.

In 2010 and 2011, Sergeants Pet Care Products had no TME.

FACILITIES

Sergeant's Pet Care Products' corporate headquarters are located in Omaha, NE. The company's sales offices are in Omaha, NE, and Bentonville, AR. The company maintains manufacturing plants in Omaha, NE, Memphis, TN, and Greeley, CO, and a centralized distribution center in Memphis, TN. Sergeant's Pet Products employs about 125 people.

OUTLOOK

Over the past several years, Sergeant's has achieved sustained growth with a brisk pace of new product launches encompassing pet foods, treats, nutritionals and insecticides. With strong associated promotional support, this has further broadened the company's line, giving it an even greater retail presence. The company expects to include more generic formulations into its product line in future.

As a result, sales of insecticides are expected to rise by 4-5% per year, on average, to reach $27.4 million in 2016.

Table 9-84: Sergeant's Outlook for Pesticides, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	22.0	-
2016	27.4	4.5

SOUTHERN AGRICULTURAL INSECTICIDES

OVERVIEW

Southern Agricultural Insecticides, Inc., of Palmetto, FL, a family-owned and operated company, was founded in the 1930s by Hans Diem and incorporated in 1947. It is currently a formulator and distributor of agrochemicals and fertilizers in the southeastern United States. The company offers a line of garden supplies as well as commercial products for golf courses, nurseries, greenhouses, professional lawn care, and specialty agriculture.

In the 1930s, crop dusting by hand was the most common method of pesticide application. Personnel and equipment was moved between Florida and North Carolina to ensure a year-round business. SA-50 became the company's trademark because 0.5% pyrethrin dust was the chief product.

After the war, the pesticide industry was changing to meet the demands to larger farms to feed a larger population. In the late 1940s, Southern Agriculture began to distribute and formulate many new products that were being developed by companies such as Dow and DuPont.

In the 1960s and 1970s, many of its customers were vegetable farms and feed stores. The business later expanded into distributing pesticides and fertilizers for turf, ornamentals, and garden centers.

SALES AND PROFITS

Southern Agricultural is a privately held company and releases limited financial information. Corporate sales were about $49.0 million in 2011. Consumer sales have been steady in the recent years and account for about 20% of total sales, or $9.8 million. Overall sales through distributors account for 80% of the sales and the remaining 10% are directly to nurseries, retail, and pest control companies. The company's focus is on the commercial golf course, nursery and lawn care markets. They plan to expand in the selection of products for the professional turf and ornamental customers.

CONSUMER PESTICIDES AND FERTILIZERS

Southern Agriculture's products include commercial products as well as contract packaging, lawn and garden items, and fertilizers. Branded products sold under the name of Southern Ag include formulations and packaging for many pesticides, soluble fertilizers, and nutritionals (minor elements).

For commercial use, the products offered include adjuvants, fungicides, herbicides, insecticides, safety equipment, seed, soil mixes, sprayers, soluble fertilizers, granular fertilizers, slow-release fertilizers, and chelated nutritionals. The company sells some of these products in the lawn and garden division as well. The heart of its business is its sales representatives selling to retailers, golf courses, commercial ornamental producers, lawn care companies, and retail distributors.

Its home and garden products include insecticides, herbicides, fungicides, fertilizers, and insect baits, which are sold by mass merchants, garden centers, hardware stores, and feed stores. In 2006, the company launched Conserve, an organic fly bait product, and Parafine, an ultra-fine horticultural oil spray for insect control. In 2009, they launched an imidacloprid based insecticide product called Grubs Away. In the organic and natural category, they have seven retail proprietary products marketed as "Reduced Risk, Organic or Eco Friendly" in the catalog. These organic products include: Payback Fire Ant Bait with .15% Spinosad, Boric Acid Roach Powder with 100% boric acid, Neem Oil Triple Action with 70% neem oil, Dipel Dust with bacillus thuringiensis, Thuricide BT Caterpillar Control with bacillus thuringiensis, Parafine Horticultural Oil with 98% parafinic oil, and Natural Purethrin Concentrate with .96% pyrethrin.

Southern Agriculture Insecticides has discontinued many products in the past few years. These products come from their lawn and garden as well as ornamental and turf product range. They are Atrazine 4L, Bayleton - Systemic Fungicide, Bayleton - Turf Fungicide Granules, Carbaryl 10% Dust, Cygon 2E Dimethoate, Livestock Dust 3%, Neutral Copper Fungicide, Paint Polymer #100, Sevin 50 Wp, Treflan Weed Preventer. These products are no longer manufactured by the company but retailers may still have inventory for these products.

Consumer pesticides and fertilizers constitute about 20% of the company's business, or about $9.8 million. Southern Agricultural has increased its production capacity in recent years. A significant part of the business is toll manufacturing and formulation of commercial products. There is an almost even split of consumer pesticides and fertilizers.

Miscellaneous include nutritionals. adjuvants, wetting agents, etc.

Table 9-85: Southern Agricultural's Sales by Product Category, 2011		
Product category	**$ Million**	**% Of total**
Agrochemicals	34.3	70.0
Contract packaging	4.9	10.0
Total Commercial	39.2	80.0
Consumer lawn and garden pesticides	6.9	14.0
Consumer fertilizers and miscellaneous	2.9	6.0
Total consumer	9.8	20.0
Total	**49.0**	**100.0**

Table 9-86: Southern Agricultural Insecticides' Estimated U.S. Sales of Pesticides and Related Products to Consumer Markets by Product Category, 2011		
Product category	**$ Million**	**% Of total**
Lawn fertilizers	2.1	21
Outdoor insecticides and baits	2.7	28
Lawn herbicides	1.2	12
Garden herbicides	1.0	10
Fungicides	2.0	20
Miscellaneous	0.8	8
Total	**9.8**	**100**

MARKETING POLICIES

Southern Agricultural's products are marketed to the southeast region of the United States and as far as some central mid-western states, using in-house staff of 15 full-time out-of-office salesmen and lawn and garden distributors. Puerto Rico and other Caribbean countries account for a significant part of its market share.

Increased product volumes are going into mass retailers, which are the most interested in basic pesticides, as well as single location stores. The Southern Ag brand can be found in many "big box" stores. The company's products are also carried by "mom and pop" stores.

In 2006, the company completed the updating of its in-house brand packaging to present a more appealing product to the consumer. Over the past 10 years, many products have disappeared from the market because of EPA changes, including a stronger formulation of its Atrazine brand, which was the bulk of its business.

With the economic slowdown generating lower sales for the company in the past few years, they have decided to make changes to their product offerings based strictly on the requests of the customer.

ADVERTISING

Southern Agriculture had no TME for 2010 or 2011. The company does not commit a large amount of resources towards advertising. They manage their promotions through in house resources than agents. The company advertises primarily through lawn and garden magazines, trade publications, trade shows, and direct mail to lawn and garden stores. In addition, the company's easy-to-navigate website, www.southernag.com, provides detailed information about its consumer and commercial products. The website lists products that are organic. It also provides product specimen labels and MSDS for individual products. It also has links to some of the company supplies.

FACILITIES

Southern Agriculture's corporate headquarters is in Palmetto, FL, and it has two facilities in North Carolina, in Hendersonville and Boone. All three locations are set up for office use, formulation, warehousing, and distribution. A few years ago, it significantly expanded its Hendersonville warehouse. It expects to add office space in Palmetto. The company employs approximately 80 people.

OUTLOOK

Southern Agriculture continues to offer a wide variety of products to commercial, lawn and garden, and agricultural users. The company continues to reduce its emphasis on the agricultural business and focus more on the turf and ornamental markets and in-house formulating. The company has discontinued many products from the lawn and garden division since 2009. The company's consumer sales are forecast to maintain stable at 2% growth for total sales.

Table 9-87: Southern Agriculture's Outlook for Pesticides and Fertilizers, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	9.8	-
2016	10.8	2.0

SPECTRUM BRANDS

OVERVIEW

Spectrum Brands (formerly Rayovac Corporation) is a global consumer products company and a leading supplier of batteries, lawn and garden care products, specialty pet supplies, shaving and grooming products, household insecticides, personal care products, and small household appliances. The company's products are available in more than one million stores in approximately 130 countries around the world, and employs 5,900 people in 43 different countries. Spectrum Brands' global headquarters is located in Madison, WI and the U.S. Home and Garden Headquarters (United Industries) is located in Earth City, MO. Spectrum continues to grow quickly by acquiring key players in specific markets, and became a strong player in the consumer pesticide and fertilizer market in 2005, when it purchased United Industries Corporation. United Industries was the leading manufacturer and marketer of value-priced consumer products for lawn and garden care, and insect control in the United States. Founded in 1969 by David Pratt, the company used both acquisitions and internal growth to become the leading supplier to the U.S. lawn and garden market.

Although initially focused on metal works, specifically anchor and bolt production, Spectrum formed Chemisco in 1973 from the acquisition of Spray Chem, a contract manufacturer of liquid and aerosol insecticides and herbicides. In 1985, United Industries acquired Real-Kill, and in 1988, it acquired various brands of Cheseborough-Ponds, a division of Unilever USA. These brands included Spectracide, Hot Shot, Rid-A-Bug, and No-Pest. In 1997, the Real-Kill and No-Pest lines were re-launched as the opening price point brands for Home Depot and Lowe's, respectively, two of United Industries' largest customers.

In 1994, United Industries purchased the Cutter line of insect repellents from Bayer AG's subsidiary, Miles, Inc. The Alljack Corporation and Celex Company were acquired a year later and included an exclusive license from the Scotts Company to use the Peters brand name (previously sold through Scotts) as well as the manufacturing portion of Kmart's opening price point brands: Kgro and Krid. In 2001, the company acquired the Sta-Green, Vigoro, and Bandini fertilizer brands from Pursell Industries, Inc., as well as the rights to the Best brand fertilizer. In 2002, United Industries bought Schultz Company, a garden products company with a line of liquid- and water-soluble plant foods including the All-Purpose Liquid Plant Food and Garden Safe pest control products.

In 2004, United Industries acquired Nu-Gro, Canada's leading marketer of consumer and commercial lawn and garden products. Nu-Gro sold fertilizer, pest control, and horticultural products through its subsidiaries in Canada and the United States. The company also produces and distributes controlled release nitrogen raw materials to the fertilizer industry worldwide. Key brands for Nu-Gro are CIL, Wilson, Vigoro, Pickseed, So-Green, Plant-Prod, Greenleaf, and Green Earth, several of which are sold by Nu-Gro under license from the brand owner. In 2005, however, Spectrum divested certain fertilizer technology and the Canadian professional products business acquired from Nu-Gru to Agrium, a leading agricultural retailer and wholesale producer and marketer of agricultural nutrients and industrial products.

Spectrum has also used acquisitions to build its battery business. In 2004, the company acquired Ningbo, a manufacturer of alkaline and zinc carbon batteries for retail, OEM, and private label customers; and Microlite, a Brazilian battery maker.

The following year, Spectrum acquired Jungle Labs, a leading manufacturer of premium water and fish care products, including water conditioners, plant and fish foods, fish medications and other products. Based in San Antonio, TX, Jungle Labs is known for innovative high-end products such as Tank Buddies fizz tablets for easy fish and water care, and Quick Dip test strips for fast water testing.

In 2005, Spectrum Brands purchased 8 in 1 Pet Products, expanding their business into the pet products area. 8 in 1 Pet Products has been around for more than 100 years and sells under the brands 8 in 1, St. Aubrey Laboratories, Shaw's Pet Product, and others.

In 2005, the first phase of the integration of United Industries with Spectrum was completed with the combination of United's Consumer Home & Garden group with Spectrum's North American business unit. The two groups' sales management, field sales operations, and marketing teams were merged into a single North American sales and marketing organization reporting to Spectrum Brands' North American management team located in Madison, WI. United's finance, information services, customer service, and other administrative functions were combined with existing counterpart organizations in Madison, while legal and certain corporate accounting functions were combined directly into Spectrum Brands' global headquarters in Atlanta. United's Global Pet business unit, including the United Pet Group and Tetra, operates as a separate business unit headquartered in Cincinnati.

As it strategically acquires new business assets, Spectrum continues to divest non-core operations. In 2007, the company completed the sale of the Canadian division of its Home & Garden business segment, Nu-Gro, for $45 million. The divestiture represents the remainder of the Nu-Gro business originally acquired in 2004 by United Industries.

Spectrum filed Chapter 11 protection in February 2009 and emerged in August of 2009. The debt restructuring resulting from the proceedings has allowed Spectrum to continue to grow in strength.

In June of 2010, Spectrum Brands merged with Russell Hobbs, Inc. adding a number of well known small household appliance brands, including Black and Decker, George Foreman, Littermaid, Farberware and Toastmaster.

In November of 2011, Spectrum acquired Black Flag and TAT from the Homax Group Inc. (part of the portfolio of Olympus Partners). and added their liquid, aerosol, and baits/traps lines to control ants, spiders, wasps, bedbugs, fleas, roach, fly and yellow jackets. The newly acquired Black Fag consumer products line has four sub brands: Pesticide Free, Stinging Pests, Crawling Pests, and Flying Pests.

- Pesticide Free: Black Flag sold environmentally friendly products for last few decades under this brand. These products contain no pesticides and no pesticide fumes or odors. They are designed for either indoor or outdoor use depending on the pest. The product line includes Roach Motel, Fly Motel Window Traps, Fly Motel Outdoor Trap, and Yellow Jacket Motel.
- Stinging Pest: Black Flag has a wide range of products to trap or kill pests like wasps, hornets, yellow jackets, and scorpions, both immediately and for the long term. The product line includes Mosquito, Fly & Gnat Killer; Commercial Wasp & Hornet Killer; Scorpion, Ant & Spider Killer; DryMax Indoor Fogger & Air Sanitizer; and Mosquito Spray & Mist.
- Crawling Pest: To control crawling insect infestations, Black Flag has products such as Ant & Roach Killing Chalk; Ant, Roach & Spider Killer – Unscented; Ant, Roach & Spider Killer – Fresh Pine Scent; Ant, Roach & Spider Killer – Spring Fresh Scent; Home Invading Ant & Spider Killer; and Flea Ender Room and Pet Spray.
- Flying Pests: Products sold under these brands are for control of flying insects such as Mosquito, Fly & Gnat Killer, Backyard Fogger, and few of the other products mentioned above.

Before being acquired by Spectrum, Homax had acquired Black Flag from the Fountainhead Group, in 2007. Homax acquired most of the Black Flag line, exclusive of the Black Flag foggers. The new product launches since this acquisition are Fogging Insecticide, Extreme Home Insect Control, Extreme Flying Insect Killer, and Mosquito Candles.

Also purchased from the Homax Group is the TAT brand of consumer insect control products. There are ten items under the TAT line of products. The TAT line includes: TAT Wasp & Hornet Killer; TAT Flying Insect Killer; TAT Liquid Power Jet-Stream with Residual Action; TAT Fogger and TAT Fogger II; TAT Ant Trap and TAT Roach Trap; and fly paper ribbon. In addition, the company also sells TAT Mosquito Repellant Coils.

Currently, Spectrum has structured its operations into three reportable segments:

Global Batteries & Appliances, which consists of battery, shaving and grooming, personal care, small kitchen appliances, and portable lighting

- Spectrum markets consumer batteries, including a full line of alkaline batteries which are marketed under the Rayovac, VARTA, and other third party labels. The zinc carbon batteries, are marketed under Rayovac and VARTA labels. Spectrum also is a large marketer and distributor of hearing aid batteries and sell through retail channels as well as directly to professional audiologists under several brand names and private labels, including, Belltone, Miracle Ear and Starkey. Spectrum also markets Nickel Metal Hydride rechargeable batteries, and chargers under the Rayovac and VARTA brands. Specialty battery products include camera, lithium, silver oxide, keyless entry, and coin cell batteries.
- Small appliances include small kitchen appliances, electric shaving and grooming as well as personal care and styling devices and portable lighting.
- Small kitchen appliance brands include George Foreman, Balck and Decker, Russell Hobbs, Farberware, Juiceman, Breadman and Toastmaster. The types of appliances include: grills, bread makers, sandwich makers, kettles, toaster ovens, toasters, blenders, juicers, can openers, coffee grinders, coffee makers, electric knives, deep fryers, food choppers, food processors, hand mixers, rice cookers and steamers.
- Small home product appliances include irons, vacuum cleaners, air purifiers, clothes shavers, and heaters, and are marketed under the Black & Decker and Russell Hobbs names.
- Grooming and personal care appliances include: Hair dryers, curling irons, straighteners, brush irons, air brushes, hair setters facial brushes, skin appliances and electric toothbrushes are marketed under the brands names of Remmington, Russell Hobbs, Carmen and Andrew Collinge.
- Portable lighting includes flash lights and lanterns for consumer and industrial use and includes brands such as Rayovac, and VARTA among others.

United Pet Group; offers products for fish, dogs, cats, birds and other standard house pets.

- The Pet Group's product lines include: commercial and consumer fish products, such as aquarium kits, stand-alone tanks and stands, filtering systems, heaters, pumps, various aquatic equipment and food and water treatments products. Brands include Tetra, Marineland, Whisper, Jungle and Instant Ocean.
- Other pet products include small animal food and treats, cleaning and training products, health and grooming aids, bedding, tents, litter carpets, litter cartridges, filters, litter and waste receptacles. Brands include 8-in-1, Dingo, Fastrax, Natures' Miracle, Wild Harvest and Littermaid.

United Industries (Home and Garden), includes household and outdoor pest control, repellents, herbicides, as well as lawn and garden plant food and plant care treatments.

- The household and outdoor insecticides marketed include those that control insects such as, spiders, roaches, and flying insects (including foggers), wasps and hornets, and fleas and ticks. Ant and Roach baits are also offered.
- Spectrum Home and Garden also markets a complete line of insect repellents for personal and area use, including sprays, wipes foggers, citronella candles, and citronella torches. Brands include Cutter, Hot Shot, and Repel.
- Outdoor pest control includes mostly rodenticides and other outdoor small animal pests.
- Herbicides, plant food and plant treatment brands include: Spectracide, Real-Kill, Garden Safe (organic alternative) and Schultz. These brands include pre- and post-emergent and selective and non-selective herbicides.

Spectrum Brands is currently in exclusive talks with Stanley Black & Decker to purchase the unit that manufactures door locks and bath fixtures, including brands such as Baldwin, Weiser lock, Kwikset and Price Pfister, for an estimated price of $1.5 billion.

SALES AND PROFITS

Spectrum Brands continues to grow since restructuring in 2009. This publicly traded company, which is a majority owned subsidiary of Harbinger Holding Company, reported net sales of $3.19 billion for fiscal year 2011 (ending September 30th). This is an increase of over 24% from the previous year's revenues of $2.57 billion in 2010. Because of the Russell Hobbs acquisition, however, if their sales were included in the net sales from fiscal 2010, the increase would only be a 2.4% increase from $3.11 billion. United industries fiscal year sales total $80.6 million in 2011, showing an increase of 5.5%, or $76.3 million, from the fourth quarter of 2010.

Table 9-88: Net Sales of Spectrum Brands by Business Unit, 2009 to 2011

	2011		2010		2009-a	
	% Of sales	$ Thousand	% Of sales	$ Thousand	% Of sales	$ Thousand
Global Batteries and Appliances	71	2,262.7	65	1,668.6	60	1,338.3
United Industries – Home and Garden	11	350.6	13	333.7	14	312.3
United Pet Group	18	573.6	22	564.7	26	589.9
Total	**100**	**3,186.9**	**100**	**2,567.0**	**100**	**2,231.5**

a- Includes sales of predecessor company.

CONSUMER PESTICIDES AND FERTILIZERS

The 2002 acquisition of Schultz provided a broad line of garden fertilizers and plant and potting soils. Schultz's water-soluble plant foods fit well with the company's water-based aerosol technology. Unlike oil-based aerosols, this technology allows for lower volatile organic compound (VOC) emissions to reduce air pollution, provide longer-lasting control and require no special warehousing. This has proven to be a plus in Spectrum's sell-in efforts to the trade. By providing convenience and ease of use with both ready-to-use formulations and hose-end sprayers for all its major herbicide, insecticide, fungicide, and fertilizer brands, Schultz's broad product line continues to experience growth. Introductions of insect, weed, and disease control products in 2004 further fueled growth in the line.

Product activity in 2005 included several new Home and Garden products including Hot Shot MaxAttrax Nest Destroyer Roach Bait, Hot Shot MaxAttax Ultra Roach Killing Gel, Peters All Purpose Liquid Plant Food and Tub, Peters Acid Loving Plant Food Tub, Peters Super Blossom Booster Liquid and Tub, Peters Strong-Start Liquid Plant Food and Spectracide Terminate Kit. Sta-Green also introduced a new line of Regional Selects Grass Seed that provides different regional grass seed blends that are made specifically for different parts of the country.

In 2006, the company launched Spectracide Once & Done! a fire ant killer for the consumer market. Previously available only through pest control agencies, the product contains the preventive and curative bait, indoxacarb. This bait attracts foraging worker ants, which carry the granules back to the colony. Within 48 hours, the entire colony and queen are dead; the product continues shielding the lawn from fire ants for up to four months. The following year, Spectrum introduced Hot Shot Liquid Ant Bait. This advanced liquid product kills the queen and colony within 24 hours. Also in 2007, Cutter introduced New Cutter Advanced Sport which offers longer-lasting protection in an aerosol form, incorporating Picardin as its active ingredient; the product was also launched in wipe form.

Table 9-89: Consumer Pesticide and Fertilizer Brands for Spectrum Brands, 2011

Category	Brands	Description
Lawn and garden insecticides and fungicides	Garden Safe, Spectracide, Schultz	The line offers a wide variety of controls for flower, garden, and houseplant insects; fire ants; and other lawn pests, as well as traps. The Garden Safe products include sprays and soaps for control of fungus, snails, moss, and algae, and use agents that are environmentally friendly
Herbicides	Garden Safe, Spectracide	The line consists of liquid formulations for both selective and nonselective control
Household pesticides	Hot Shot, Spectracide	This category includes termite and other household insect killers, as well as rodent and moth controls. They are available in sprays, baits, foggers, granules, and powders
Repellents	Cutter, Repel	Offers sprays, lotions, gels, aerosols, towelettes, sticks, foggers, candles, coils, lanterns, and torches
Plant food	Schultz, Vigoro	The All-Purpose line from Schultz offers a wide range of specialty formulas for roses, orchids, tomatoes, acid-loving plants, and lawns

As noted in the summary above, Spectrum Brands eliminated growing products (fertilizers, enriched soil, mulch and grass seed) as well as all of the Canadian Home and Garden divisions in 2009. The control products remain, as well as selected plant food products, as seen below.

Table 9-90: Spectrum's Consumer Pesticide and Fertilizer Sales, 2011

Product category	$ Thousand	% Of total
INSECTICIDES		
Household/pet	122,820	34
Outdoor	136,980	37
Repellents	31,860	9
Total	291,660	80
FERTILIZERS		
Lawn	7,080	2
Garden	3,540	1
Houseplant	3,540	1
Total	14,160	4
HERBICIDES		
Garden	7,080	2
Nonselective	28,320	8
Lawn	17,700	5
Total	53,100	15
FUNGICIDES	7,080	2
TOTAL	**366,000**	**100**

MARKETING POLICIES

Spectrum markets value-brand products, with approximately 90% of sales made on a direct-to-retail basis. Its household and other non-plant products are widely available in grocery stores, hardware stores, drugstores, home centers, wholesale clubs, garden centers, and other national chain outlets, but mass retailers including Home Depot, Kmart, Lowes, and Walmart account for three-quarters of sales. About 90% of its products are sold under its own brand names with the remainder private-labeled for other marketers. Sales to professionals are high, comprising about 30% of total sales, with sales to consumers accounting for the remaining 70%.

Spectrum's pesticide sales organization is comprised of the former United Industries national sales group and includes about 350 sales representatives, one of the largest in the industry.

Spectrum Brands is participating in two conferences in September in New York City, the Imperial Capital 6th Annual Global Opportunities Conference and the C.L. King 10th Annual Best Ideas Conference.

ADVERTISING

Spectrum Brands had TME for their products in 2011 totaling approximately $300,500, of which about 69% was spent for syndicated TV, and 18% for the internet. This shows a gradual increase in focus toward internet spending.

Table 9-91: Traceable Media Expenses Spectrum Brands 2010 and 2011

	$Thousand				
Brand	**Syndicated TV**	**Spot TV**	**Radio**	**Internet**	**Total**
2010					
Spectracide	-	-	-	-	-
Grass and Weed Killer	-	-	-	17.9	17.9
Lawn and Garden Pesticide	-	-	39.2	-	39.2
Pesticide	-	-	-	55.1	55.1
Lawn and Garden Treatments	-	-	23.0	-	23.0
Shultz	-	-	-	-	-
Garden Safe: Fertilizers & Treatments	324.0	0.5	-	-	324.5
Total	324.0	0.5	62.2	73.0	459.7
% Of total	70.5	0.1	13.5	15.9	100.0
2011					
Spectracide	-	-	-	-	-
Grass & Weed Killer	-	-	-	12.7	12.7
Pesticide	-	-	-	40.8	40.8
Lawn & Garden Treatments	-	-	28.9	-	28.9
Weed Stop: Weed Killer	-	-	8.5	-	8.5
Shultz	-	-	-	-	-
Garden Safe: Fertilizers & Treatments	208.6	1.0	-	-	209.6
Total	208.6	1.0	37.4	53.5	300.5
TOTAL	**69.4**	**0.3**	**12.4**	**17.8**	**100.0**

Spectrum Brands had a TME of $459,700 in 2010. The majority of the expenditure ($324,000) was spent on the Shultz Garden Safe Fertilizer and Treatment products and was spent on Syndicated TV. In 2011, the TME decreased to $300,500. Similarly, the most of the advertising was for the Shultz Garden Safe Fertilizer and Treatment products advertised on Syndicated TV ($208,600). Other advertising methods include spot TV, radio and the internet. The company's website, www.spectrumbrands.com, offers information in the Home and Garden section about the different brands including links to each brand's own website.

FACILITIES

Spectrum Brands corporate headquarters relocated back to Madison, WI, in 2010. The U.S. Home and Garden Headquarters is in Earth City, MO, and the United Pet Group is in Cincinnati, OH. There are about 5,900 employees worldwide. The Home and Garden Division has about 2,800 full-time employees.

OUTLOOK

Through the forecast period, Spectrum's United Industries division is expected to see moderate growth as the company continues to focus on expanding its product line offerings, through acquisition and is also emphasizing strength in its research and development unit. It is possible that they will continue to spin off brands if they are not exhibiting enough strength, as they try to improve their debt versus revenue ratio. The company remains one of the dominant players in the U.S. consumer lawn and garden pesticide market, and continues to benefit from strong relationships with key national retailers including Walmart, Kmart, Home Depot, and Lowe's.

Stable growth in consumption of the Home and Garden products should continue. For insecticides and repellents, growth in consumption should see slight by steady increases due to increasing awareness and incidents of pests (including bedbugs), infestation recognition, the growing fire ant problem and the awareness of disease problems arising from mosquitoes and deer ticks. Herbicide usage should grow as well as invasive weeds intrude more and more into home lawns and garden areas.

Based on average annual growth of 3% to 5%, excluding additional acquisitions, U.S. sales of Spectrum's consumer pesticides are projected to reach more than $445 million in 2016, as shown below. This could be significantly increased by acquisitions of other companies or product lines, or decreased by divestitures, neither of which is included in this forecast.

Table 9-92: Spectrum's Outlook for Pesticides and Fertilizers, 2011 to 2016		
Year	$ Million	Average annual growth, %
2011	366.0	-
2016-a	445.3	4.0

a- Excludes future acquisitions and divestitures.

ST. GABRIEL ORGANICS

OVERVIEW

St. Gabriel Organics is a privately held company located in Orange, VA. The Reuter family started the company in 1995 and continues to manage the business. Mary Reuter is president, Robert Reuter is vice president and general manager, and Ted Reuter is active as a director.

Prior to founding St. Gabriel, the Reuter family had started Reuter Laboratories in 1974. Reuter Laboratories, which had a line of consumer fertilizer and pesticide products, was sold in 1985 to a company that shortly thereafter went out of business.

SALES AND PROFITS

St. Gabriel Organics does not release financial information. Corporate sales are estimated at $3.75 million in 2011. Exports to Latin America account for an estimated $0.5 million of the total.

CONSUMER PESTICIDES AND FERTILIZERS

Consumer products offered under the St. Gabriel Organics brand are classified into four major categories:

- Insect control
- Plant and weed control
- Ice-melt products
- Farm and Ranch products

St. Gabriel Organics no longer operates the fertilizers business. The insecticides business of the company is getting stronger with the addition of new organic insecticides. The ice-melt line is also small and is not germane to this report nor is the new yard glove barrier lotion product. The major product categories are discussed below.

Consumer insect control products and plant and weed control products constitute an estimated 96% of the company's U.S. business, or approximately $3.6 million, in 2011.

Table 9-93: St. Gabriel Organics Estimated U.S. Sales of Pesticides and Related Products to Consumer Markets by Product Category, 2011		
Category	**$ Thousand**	**% Of total**
INSECTICIDES		
Outdoor	2,513	67
Repellents	525	14
Total	3,038	81
HERBICIDES		
Non-selective	375	10
Selective	188	5
Total	563	15
OTHERS-a	150	4
TOTAL	**3,750**	**100**

a- Includes farm and ranch products.

Insect control

The company's insect control product line includes Milky Spore, Insect Dust, Sharpshooter, Deer Repellent, Mosquito Repellent, and Hot Pepper Wax Animal Repellent.

- Milky Spore is St. Gabriel Organics' largest-selling insect control product and consists of a naturally occurring bacterium (*Bacillus popillae-Dutky*) that is lethal to Japanese beetle grubs. The bacillus spores in treated turf are swallowed by grubs during their normal pattern of feeding, beginning the grubs' demise within the next 7 to 21 days. As the grub decomposes, it releases billions of new spores continuing and amplifying the protection process. Milky Spore is not harmful to beneficial insects, birds, bees, pets, or humans. The product is approved by and registered with the EPA and will not adversely affect wells, ponds, or streams.
- Insect Dust is based on diatomaceous earth and is marketed to control ants, fleas, and ticks. The product is sold in a 6 lb bag and is applied to the soil where the insects are present. It is safe for use indoors around kitchen cupboards and pantries.
- Deer Repellent is composed of natural oils that repel deer and small animals for up to 90 days when applied to places deer are feeding such as trees, and shrubs. It is sold in a 32 oz hose-end spray applicator.
- Mosquito Repellent is composed of natural oils that include black pepper and garlic. Company literature states that it repels mosquitoes, gnats, fleas, and ticks for up to 60 days. It is sold in a 32 oz hose-end spray applicator.
- Bugshooter Wasp & Hornet Killer is used to kill wasps, yellow jackets, and hornets on contact in the air and on their nests. The hose-end sprayer provided kills the insects on contact from 20 feet.

- Anteater Bug Powder is used to control ants, ticks, fleas, cockroaches, earwigs, palmetto bugs, and all soft body crawling insects. It kills the crawling insects by cutting into exoskeleton and dehydrates them. A single usage is able to keep away insects for nine months. It is an OMRI certified organic product made from food-grade Diatomaceous Earth. St. Gabriel claims it to be the only ant killer labeled for use in the kitchen and around food.

The company has launched some new products including its organic line in the last two years: Stink Bug Killer, Bugshooter Kitchen spray, Bugshooter Garden insect killer, Flyswatter, Holy Moley Mole Repellent.

Plant and weed control

St. Gabriel Organics has a line of natural plant and weed control products that includes Burnout, Moss Killer, and Poison Ivy Defoliant. It recently introduced all-natural Premerge, a corn gluten product for early broadleaf control, which it expects to drive sales in the herbicides category.

Burnout is composed of blended plant oils. It is used to kill weeds and grass in gardens and orchards and can be used on walkways, driveways, shrubbery beds, and elsewhere as a post defoliant to control weeds and unwanted grass. Annuals are killed right away, while perennials may require additional treatment. Moss Killer and Poison Ivy Defoliant have a similar composition, but are formulated specifically for the target application.

MARKETING POLICIES

Five company sales representatives and 25 manufacturer representative organizations market St. Gabriel Organics products nationally. Almost all of the sales are through distribution channels, with the exception of online and telephone sales to consumers. Products are primarily retailed through independent garden centers and hardware stores.

Its online business is small, but growing. The company wants this to be linked to its identity as is MILKY SPORE, which represents the major portion of its business. The big push in the recent past to the sales online and at the stores has been the new trademarks on all products. The company innovatively packages its products by using trademarks like “pet-approved brand” and “kitchen safe brand.” On its website, dealers and distributors that are “pet-approved” are highlighted for consumers who consider this a priority in purchasing.

An easy-to-navigate website (www.milkyspore.com) includes product descriptions, product labels, and MSDS safety sheets for dealers and consumers. The website emphasizes on every page, near its logo, that it sells “Environmentally Safe Lawn & Garden Products.” Separately, the company notes the increased demand for all natural products by consumers.

ADVERTISING

St. Gabriel Organics had no TME for 2010 or 2011. The company does its advertising on talk-radio garden shows as well as some cooperative advertising with its dealers and participates in trade shows.

Its consumer-friendly website facilitates the purchase of its products by providing lists of retail outlets in each state and by encouraging consumers to submit orders directly online or by calling a toll-free number. It allows consumers to also obtain the names of dealers that carry brands that are safe for pets. Pop-ups allow the consumer to selectively view the product packaging.

FACILITIES

St. Gabriel operates a manufacturing plant at its headquarters in Orange, VA. The company is also making efforts in research and development to launch more products in the insecticides category. It has approximately 20 full-time employees, including management, and makes use of temporary help during peak production periods.

OUTLOOK

St. Gabriel Organics is forecast to grow as a supplier of specialty pest control products, and herbicides to the homeowner. Branded insecticides products, with sales forecast to grow at the strong compounded annual rate of 10%, propelled by an innovative product line that caters to consumer interest in organic products. St. Gabriel plans to achieve this growth by high sales of the recently launched insecticides meant for the stink-bug. The sales of herbicides and farm products are also projected at a compounded annual rate of 4.5%. Sales are forecast to grow to about $5.8 million in 2016.

Table 9-94: Forecast U.S. Sales of St. Gabriel Organics' Pesticides and Related Products to Consumer Markets by Product Category, 2011 to 2016

	$ Thousand		
Product category	**2011**	**2016**	**Average annual growth, %**
INSECTICIDES			
Outdoor	2,513	4,047	10.0
Repellents	525	845	10.0
Total	3,038	4,892	10.0
HERBICIDES	563	702	4.5
OTHER	150	187	4.5
TOTAL	**3,751**	**5,781**	**9.0**

SUMMIT CHEMICAL

OVERVIEW

Summit Chemical was founded in 1959 by Lawrence Kase, a food technologist with a masters' degree in microbiology. Kase developed several insecticides which were marketed to food packaging companies. The company subsequently expanded into supplying professional pest control products to food plants, government agencies, industry, and pest control companies.

Growth proceeded quickly after Summit Chemical entered the mosquito control business. In 1986, the company received a U.S. patent on a sustained-release biological product for mosquito control. Called Summit B.t.i. Briquets (*Bacillus thuringiensis* subspecies *israelensis*), the product kills mosquitoes in the larval stage before they are old enough to bite, and is now sold to mosquito control professionals throughout the world. In 1990, Summit expanded distribution to the consumer market, introducing a product for homeowners called Mosquito Dunks and three years later, the U.S. Department of Defense assigned Bti Briquets a National Stock Number to purchase the product and protect troops home and abroad from mosquito borne illness.

Over the years, Summit Chemical has added some organic insecticides to its product line that includes the enviro-friendly Mosquito Dunks and the OMRI listed Year-Round Spray Oils.

TOTAL SALES

The consumer and commercial businesses of Summit Chemical have witnessed a small increase since 2009. Summit Chemical's sales are estimated at $9.5 million in 2011, of which insecticides sold under its own brand names comprise about $4.5 million. The remainder includes pond products, a new lawn fertilizer and contract manufactured products. About 67% of the company's sales of consumer insecticides are made through brokers, with 17 agencies representing the products of Summit Chemical around 1,600 retail stores in the United States. About one-third of the company's sales are provided directly to the mass merchandisers, retail stores, and online. Summit's insecticides are widely available at Ace Hardware, True Value, Sears, Lowe's, and Home Depot stores.

The company produces private-label products for other companies as well. Private-label products account for about 25% of the total sales for consumer insecticides and related products. About 75% of sales for consumer pesticides and related products are of the company branded products.

Table 9-95: Summit Chemical's Sales of Pesticides for Branded and Private-label Products, 2011

Product category	$ Million	% Of total
Branded products	4.5	75
Private-label	1.5	25
Total	**6.0**	**100**

PRODUCTS

For consumer markets, Summit offers several mosquito control products including Mosquito Bits and Mosquito Dunks. Available in 8 oz, 30 oz, 20 lb and combination packages with Mosquito Dunks, Mosquito Bits are sprinkled in standing water to kill even large mosquito populations and mosquito larvae within 24 hours. Mosquito Dunks are sustained release discs designed to float in a water garden. Each disc treats up to 100 square feet of surface water for one month. Mosquito Dunks are available in 2 and 6 unit packages; they are also sold attached to artificial water lilies to disguise the disc ("Hide-a-Dunk"). The company also offers Mosquito & Gnat Barrier in a hose-end spray bottle and Mosquito Repellent Coils. Summit's mosquito control products contain naled, pyrethrins, and/or permethrin.

For control of insects such as aphids, adelgids, certain caterpillars, leaf beetle larvae, scales, spider mites, and white fly, Summit offers Year Round Horticultural Spray Oil in a variety of sizes. The product is designed for consumers to use throughout the year, and according to the company, can be used safely on all houseplants, garden plants, vegetables, and fruit trees up until the day of harvest as it contains no dangerous chemicals. This is an OMRI listed product which cements the company's claim of calling it an organic product.

The recent modification of Ready-to-Use (RTU) Spray Oils has been done by Summit Chemical. These ready-to-use spray oils are pre-diluted for small use in the home and backyard and approved for organic gardening. Ready-to-Use is an alternative to concentrates that require mixing.

Other related consumer products include clear water pond treatments to clarify murky, unclear backyard ponds. Clear-Water Barley Straw and Extract naturally decay in pond water, releasing enzymes that aid in maintaining water clarity. Summit also offers a variety of pond accessories such as artificial water lilies, lotus, and cattails.

In 2006, Summit expanded into fertilizers with EZ Lawn Seeder, a 3-in-1 product that delivers grass seed, fertilizer and water in a single step. EZ Lawn Seeder attaches to any standard garden hose. The company also broadened its pond treatment line with the addition of three new barley straw planters in small, medium and large sizes. The planters float in a pond to clarify water and hold ornamental plants.

In 2012, Summit Chemical is likely to launch its Biological Caterpillar & Webworm Control, an eco-friendly caterpillar killer that targets caterpillars and webworms. Summit Biological Caterpillar & Webworm Control is available in three sizes; one pint concentrate, one quart concentrate and one quart hose-end spray bottle.

For commercial and professional markets, Summit offers fogging insecticides, residual insecticides, space sprays and specialty insecticides. Its residual or long term insecticides leave an active residual film on treated surfaces that continues to kill insects for various periods of time.

Summit products are available nationally through a large number of distributors, as well as a variety of retail channels including hardware stores such as Ace, True Value, and Sears and home centers such as Lowe's and Home Depot, nurseries, and garden centers.

MARKETING POLICIES

Summit Chemical works closely with retailers to market its consumer products. In addition to providing trade discounts, the company offers several eye-catching product display stations, which prominently feature its Mosquito Bits and Mosquito Dunks.

Summit Chemical has recently updated their website by making it more customers friendly and easy to surf. Summit Chemical has added a product locator feature to the site that allows better access to the consumers to their products being offered in close proximity to their homes. Summit Chemical has 3,000 independent vendor locations across the country.

Summit is actively involved a number of professional associations including the American Mosquito Control Association, Northeast Mosquito Control Association, Mid-Atlantic Mosquito Control Association, Virginia Mosquito Control Association, New Jersey Mosquito Control Association, North Carolina Mosquito Control Association, and South Carolina Mosquito Control Association.

In February 2012, AMVAC Chemical Corporation has acquired the manufacturing rights of B.t.i. Briquets from Summit Chemical for the global professional mosquito larvicide market. As per the agreement, Summit Chemical will manufacture and provide AMVAC Chemical with a pipeline of new larvicides based on b.t.i. for the public health mosquito control market. This initiative is likely to benefit Summit with new product development and increased market penetration of its products as AMVAC Chemical has a bigger customer base.

ADVERTISING

Summit's TME for 2010 was $39,200 and in 2011 it increased significantly to $86,700, all of which was spent on their Insecticide brand. The company works with an advertising agency which handles all of its consumer and professional promotions. Its promotional activities include trade shows and print advertisement campaigns and a limited amount of magazine and newspaper advertising.

Table 9-96: Traceable Media Expenditures for Magazines by Summit Chemical, 2010 and 2011

Brand and product	$ Thousand
2010	
Mosquito Dunks: Mosquito Reppellent	10.4
Year Round Spray Oil Pesticide: Combo	19.2
Summit Insecticides	9.6
Total	39.2
2011	
Summit Insecticides	86.7

FACILITIES

Summit's headquarters and manufacturing facilities are located in Baltimore, MD. In October 2005, the company relocated from the Chase neighborhood east of Baltimore to a larger, freestanding complex in Baltimore city proper.

In addition to producing its products under its own brand names, Summit also private labels products for other suppliers and offers contract manufacturing of insecticides, deodorants, insect repellents, shampoos and herbicides. The company is able to package liquid products in multiple sized containers and drums as well as in railroad tank cars, enabling large scale production, and can package granular products in various size containers. It employs 25 persons.

OUTLOOK

Through the forecast period, there are likely to be no major changes and Summit will benefit from expected increases in the sales of mosquito control products and established distribution through a large network of national retailers. The company's new, larger facility has provided it with the capacity to meet heightened demand. Through 2016, sales of the company's insecticides and new fertilizer are expected to rise by 3.5% to reach $11.3 million.

Table 9-97: Forecast U.S. Sales of Summit's Pesticides to Consumer Markets, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	9.5	-
2016	11.3	3.5

VALUE GARDEN SUPPLY

OVERVIEW

Value Garden Supply, based out of Bloomington, MN is a supplier of value-priced products for both professionals and consumers, offering a total of more than 60 SKUs. The company is a leading supplier of off-patent chemicals that can be used for gardens, nurseries, greenhouse, orchards, and other professional and agricultural markets. These products include insecticides, fungicides, herbicides, and other specialty products.

SALES AND PROFITS

In 2011, Value Garden Supply's sales are estimated at about $20 million, of which consumer pesticides and insecticides sold under the company's own brands are estimated at $10.5 million. About half of the company's sales are made through brokers and half are made direct to retailers. Contract manufacturing accounts for about 30% of sales.

CONSUMER PESTICIDES AND FERTILIZERS

Value Garden Supply's home and garden products are marketed under its three brands:

- Dexol: Dexol insecticides include Ant Killer Granules 2, Home Insect Killer 2, Lawn Insect Killer 2, Rose & Flower RTU, and RoseGuard 2-in-1. Dexol herbicides include Grass & Weed RTU, Grass & Weed Concentrate, Poison Ivy/Poison Oak, Lawn Weed Killer, and Super BK32 Brush Killer. Dexol gopher control products are Gopher Gassers, and Gopher Killer Pellets.
- Gardner's Choice: Gardener's Choice fruit and vegetable category includes Fruit & Vegetable 3-in-1 Spray Concentrate, and Fruit & Vegetable 3-in-1 Spray RTU. Gardener's Choice dormant oils are Four Seasons Oil Spray Concentrate, and Four Seasons Oil Spray RTS. The brand includes Ant Killer Granules, Home Pest Insect Killer, and House Plant Insect Killer. Gardener's Choice also has Insecticidal Soap, Lawn Insect Granules, Rose & Flower Insect Killer, Rose & Flower 3-In-1 Spray Concentrate, Yard & Garden Concentrate, and Yard & Garden RTU.
- ALLPRO: ALLPRO brands include Indoor/Outdoor Insect Killer, Mill Mist "S", Cygon 2E, Carbaryl Dust, Mole Cricket Bait, Tirade FAC, Predator 5G, BK32 – Herbicide, and Exotherm Termil – Fungicide. Overall, ALLPRO has 14 pesticide products including six granular insecticides, two fungicide products, and one herbicide product.

Value Garden periodically offers several of these in bonus sizes.

Value Garden Supply had previously offered the Black Leaf brand, which included Yard and Patio Fogger, Wasp and Hornet Killer, House and Garden Pest Killer, Home Insect Fogger, Flying and Crawling Insect Killer, Ant, Roach and Spider Killer, and other insect control products. This line, however, has been discontinued.

Table 9-98: Value Garden Supply's U.S. Sales of Pesticides and Related Products to Consumer Markets by Product Category, 2011

Product category	$ Million	% Of total
INSECTICIDES		
Outdoor	2.5	23.8
Household	1.7	16.2
Total	4.2	40.0
HERBICIDES		
Garden/non-selective	1.8	17.1
Lawn herbicides	0.3	2.9
Total	2.1	20.0
RODENTICIDES	1.1	10.5
FUNGICIDES	0.4	3.8
LAWN FERTILIZER	0.4	3.8
OTHER-a	2.3	21.9
TOTAL	**10.5**	**100.0**

a- Includes pruning sealers, stump removers, moth traps, and various other products.

MARKETING POLICIES

Value Garden Supply relies heavily upon distributors and manufacturers' reps to market its products to retail customers. In Colorado, Iowa, Indiana, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, Ohio, and Wisconsin, Value Garden's brands are represented by Total Marketing, a sales organization focused on marketing fertilizers, pest control products, and organic gardening supplies. In other parts of the country, Value Garden's products are represented by BPA. Value Garden Supply employs one inside sales representative and also works with manufacturers' representatives.

ADVERTISING

Value Garden Supply had no TME for 2010 or 2011. The company primarily uses print advertising to promote its products. Professional products are advertised in trade publications such as *American Fruit Grower* and *Country Folks* grower magazines. The company website (http://www.valuegardens.com) also provides customers with information on the products and the MSDS for each of them.

FACILITIES

Value Garden Supply employs 45 people. The company is headquartered in Bloomington, MN. The company's manufacturing and warehouse facilities are located in St. Joseph, MO.

OUTLOOK

Value Garden Supply is an established manufacturer of consumer pesticides, but does not invest in the promotion or new product development required to significantly boost sales. Its value pricing will benefit the line as the U.S. economy weakens, but will not support significant gains. Furthermore, the company has discontinued its Black Leaf line. Therefore, continued nominal sales growth is expected over the next several years, in line or slightly less than overall industry growth. Through 2016, sales are expected to rise by 1.6% per year to $11.4 million.

Table 9-99: Value Garden Supply's Outlook for Pesticides, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	10.5	-
2016	11.4	1.6

VIRBAC CORP.

OVERVIEW

Virbac Corp. of Fort Worth, TX, is a publicly held manufacturer and marketer of companion animal health products, focusing on dermatological, parasiticide, dental, and pet health products. Offering a broad range of products including older brands such as Allerderm, C.E.T., Preventic, and Francodex, as well as newer lines that have been acquired or developed in-house, the company is a major player in the veterinary products market, with a presence in 100 countries a veterinary laboratory ranked 9th worldwide. A subsidiary of Virbac S.A. of Carros Cedex, France, Virbac Corp. was formed on March 5, 1999, with the merger of Virbac, Inc., a wholly owned subsidiary of Virbac S.A., and Agri-Nutrition Group Ltd. In December 2005, Virbac S.A. announced that it would acquire the remaining 40% of Virbac Corp. that it did not already own.

Virbac S.A. was founded in 1968 by veterinary surgeon Dr. Pierre Richard Dick, and is ranked in the top 10 distributors of animal health products worldwide. The company entered the U.S. consumer market in 1982 with the purchase of Allerderm, a dermatological products company, and Carson Chemical Company, an insecticide manufacturer. Since then, both Virbac S.A. and Virbac Corp. have grown briskly, largely through a series of strategic mergers and acquisitions.

In 1999, Virbac Inc. merged with Agri-Nutrition, a company that specialized in pet health care products and was itself formed by the acquisitions of Zema, St. Jon, St. Jon Rx, and Mardel, all between 1995 and 1997. Also part of Agri-Nutrition was the former Purina Mills manufacturing facility, PM Resources (now Virbac-St. Louis), which produced private-label products in the animal health, pesticide, and specialty chemical markets.

In 2000, Virbac Corp. obtained over-the-counter (OTC) marketing rights to Pet Tabs from Pfizer. The same year, Virbac sublicensed the North American distribution rights for two equine products in development to Pfizer, and in 2003 received FDA approval to sell the products. The company also broadened its parasiticide portfolio beyond flea, tick and mite control to include several anthelmintics (dewormers). In 2001, Virbac launched Worm-X (pyrantel pamoate) canine dewormer in the consumer market; Iverhart Plus (ivermectin) canine heartworm preventative in the veterinary market; and Bovimec and Virbamec (ivermectin) pour-on cattle anthelmintics. In 2002, Virbac expanded its dermatological product lines with Allermyl Shampoo, a foaming micro-emulsion that relieves skin irritation and pruritus in dogs and cats. In addition, Virbac received FDA approval for Genesis, a topical spray for allergic dermatitis.

In 2003, Virbac continued to expand its veterinary business with the acquisition of Delmarva Laboratories and the animal health products of King Pharmaceuticals. Delmarva's products lines include Euthasol and Pentasol, two euthanasia products for companion animals, and Biomox amoxicillin, a broad-spectrum antibiotic. Products acquired from King include Soloxine, a canine thyroid hormone replacement drug; Pancrezyme for pancreatic enzyme insufficiency in dogs; Tumil-K, a supplement for cats; and Uroeze and Ammonil, which are both urinary acidifiers to treat and prevent canine bladder stones and feline lower urinary tract inflammation.

In 2004, Virbac acquired the manufacturing rights to Leucogen, a feline leukemia virus vaccine, from Antigenics. Virbac had previously held the marketing rights to the product. The company also discontinued contract manufacturing of its livestock de-wormers as a result of competitive pricing that diminished product profitability.

Acquisitions continued in 2006, with the buyouts of GlaxoSmithKline's veterinary division in India and an Italian company specializing in antibiotics for pigs.

Virbac sold its consumer group to Sergeant's Pet Care Products in 2008. The products divested include proprietary pet care items: Internal and external health care products, dental solutions and an expansive aquatic line.

In 2008, Virbac acquired selected animal health products from Schering-Plough in Europe. These acquired veterinary drugs include: intra-mammaries and injectable antiinfectives, and endocrinology products. These products are used for food producing animals, mainly cattle.

In February 2010, Virbac closed an agreement with Pfizer Inc. to acquire some of its veterinary products, including a manufacturing facility, in Australia. Virbac acquired rights to Pfizer's portfolio of livestock products marketed in Australia by Fort Dodge Animal Health for use in farm animals, primarily cattle and sheep. The acquired portfolio achieved net sales of approximately 36 million Australian dollars in 2009 and includes parasiticides and vaccines, accounting for 80% and 20% of the sales, respectively.

In March 2010, Virbac announced a strategic alliance by taking 30% shareholding in Uruguayan laboratory Santa Elena, a 50-year old company producing food-producing animals vaccines, especially for bovine, which are marketed in Uruguay and Latin American countries. The company's revenues reached USD 7 million in 2009. Virbac has the option to acquire whole of the capital stock of Santa Elena in future.

In January 2011, Virbac acquired the veterinary assets of the Synthesis company in Colombia for $9.6 million. The company generated revenue of about $5 million in 2010 composed of 60% of bovine products and 40% of companion animal products.

In February 2011, Virbac acquired the distribution rights for Multimin injectable supplements for South Africa and neighboring countries from the Animalia company.

In March 2011, the European Commission awarded Virbac the European registration for the vaccine CaniLeish which was launched in May 2011 in the Portuguese market.

In May 2011, Virbac acquired the Australian company Peptech for 9.1 million Australian dollars, with which it signed a distribution contract for the contraceptive implant for dogs Suprelorin in 2007.

SALES AND PROFITS

In 2011, net sales for Virbac S.A. were reported at 623.1 million euros ($722.5 million), up 8.8% from the prior year. Sales for Virbac Corporation in the North America in 2010 were reported at 83.4 million euros ($96.7 million), primarily for the US. Sales in 2011 for Virbac US are estimated at $93.9 million, representing a slight decline of about 2.9% over previous year, attributed to decreased exchange rate of Euro to USD in 2011. Virbac Corp. has two divisions left after it sold of its consumer division: Veterinary and PMR (Virbac-St. Louis).

The Veterinary Products division continues to lead the company in 2007, accounting for about half of the company's sales and gross profit. Virbac's main veterinary product lines are Allerderm dermatologicals; C.E.T. dental products; Preventic flea and tick collars; and Iverhart Plus canine heartworm preventative. In 2006, the company introduced Iverhart Max, the most complete FDA-approved heartworm preventive. In 2010, Iverhart brand experienced a 23% growth and had sales of $28 million.

Virbac's PMR division private labels rodenticides and insecticides for more than 20 veterinary pharmaceutical companies. Over the past several years, Virbac has eliminated many low margin contract manufacturing products and transferred the available production capacity to its internal Veterinary and Consumer products. Virbac considers these activities to be non-core low margin and is trying to minimize such activities. Sales of private label brands have been estimated at about 11% of Virbac's overall product sales in 2011.

Table 9-100: Virbac's Sales of Pesticides for Branded and Private-label Products, 2011

Type	$ Million	% Of sales
Branded	82.7	89.0
Private label	10.2	11.0
Total	**93.9**	**100.0**

CONSUMER INSECTICIDES

Virbac's veterinary insecticides offer a line of flea and tick products that include a shampoo, tick collars, dip, and a topical flea solution. The topical solution contains fipronil and permethrin. The Tick Collar contains Amitraz and the shampoo has pyrethrin as the active ingredient. The Knockout line includes an indoor area flea spray and an outdoor yard spray. The Knockout Area treatment contains Nylar IGR as the active ingredient and the Knockout Yard Sprain contains esfervalerate as the active ingredient.

Estimated sales of Virbac's flea and tick products for 2011 total $12.4 million. These sales along with the Iverhart heartworm sales puts Virbac's consumer pesticide sales at $40.4 million in 2011.

MARKETING POLICIES

Virtually all of Virbac's pet insecticides are sold through distributors or brokers who call on retail stores. The company has an internal sales force of 30 reps and also works with a several dozen manufacturers' reps. Virbac insecticides are available in most leading retail pet stores such as Petsmart. The company increased distribution network by growing Virbac sales force and included a new major distributor in January 2010. This resulted in increased sales of many of its products, especially Iverhart.

About three quarters of Virbac's rodenticides are sold through distributors or brokers, with the remaining 25% sold directly to retail. The company maintains a separate sales force of three reps that represent rodenticides and also works with manufacturers' reps.

ADVERTISING

Virbac had no TME for its pet insecticides in 2010 or 2011.

FACILITIES

Virbac Corporation employs 301 people nationally and is headquartered in Fort Worth, TX. This location includes warehouse and manufacturing facilities for its dermatological and other nonregulated products. Virbac's largest manufacturing facility is its Bridgeton, MO, plant near St. Louis, which comprises 176,000 square feet. The company holds over 140 EPA and FDA product registrations, and manufactures these products at its Bridgeton facility.

In 2004, Virbac S.A. established an ongoing improvement policy based on lean manufacturing and waste prevention while at the same time seeking to improve quality. Affecting approximately 500 employees, the new processes have resulted in productivity gains of approximately 9% in production and 7% in other areas. Although initially implemented in France, where 80% of the company's production occurs, these best practices are slowly being rolled out through the Virbac system and will likely also be implemented in the United States.

OUTLOOK

Virbac S.A. has achieved strong recent growth, fueled by strategic acquisitions and gains in international markets, Virbac Corp. is growing at a steady rate with few new product introductions and promotion. With continued expansion of the U.S. pet products market will support sales. Virbac Corp. is planning to ramp up its activity by launching new products like Multimin, CaniLeish, and a couple more in the dermatological range as a result of new strategic alliances formed. Through 2016, growth of its veterinary insecticides is estimated at 5%. The sales for Virbac's consumer pesticides are expected to reach $51.6 million by 2016.

VOLUNTARY PURCHASING GROUPS

OVERVIEW

Voluntary Purchasing Groups (VPG) has been a supplier of lawn and garden products for more than 50 years. The company is headquartered in Bonham, TX and is a cooperative of approximately 7,000 farm supply retailers, lawn and garden dealers, and wholesalers that manufacture and distribute agricultural and consumer fertilizers, pesticides, and related products.

The company was forced by environmental and toxic tort litigation to file for Chapter 11 bankruptcy protection in June 1996. Its Plan of Reorganization was approved in June 1998. This litigation included personal injury and liability lawsuits arising from charges on the company for dumping arsenic at its Commerce, TX fertilizer plant beginning in the early 1960s, until the plant's closure in 1972. Without admitting responsibility for the contamination, VPG agreed to settle the matter with the State of Texas for $2.5 million, thereby ending a 40-year dispute. The company continues to work with the Fannin County Development Foundation, Inc. (FCDF), a related party, to manage and administer the environmental cleanup of three former fertilizer plants.

SALES AND PROFITS

A semiprivate company, VPG releases limited financial information. Product sales in 2011 are estimated at around $46.7 million, growing at a rate of 4% in the last two years. Sales of consumer pesticides and related products are estimated to constitute 96% of the total sales at $44.8 million in 2011. Around 99% of the company's sales are made through distributors and brokers, with the rest made direct to retail. VPG works with more than 80 distributors, in addition to approximately 600 manufacturers' representatives. All sales are made under VPG's own brands and include, in addition to consumer pesticides and fertilizers, a large line of soil amendments and peat products.

CONSUMER PESTICIDES AND FERTILIZERS

VPG markets a broad range of lawn and garden products, including combination and straight fertilizers, herbicides, insecticides, fungicides, and related items. The company offers around 300 individual SKUs to more than 8,000 retailers across the country. VPG manufactures products under the brands: Ferti-Lome, Hi-Yield, and Natural Guard.

Consumer products are sold under the Ferti-Lome, Hi-Yield, and Natural Guard labels. The Fert-Lome brand has a range of fungicides, insecticides, weed killers, plant foods, houseplants, and sprayers. Hi-Yield brand has fertilizers, fungicides, insecticides, and weed killers. Natural Guard is a brand of organic products positioned as a complete line of natural products with fungicides, insecticides, plant foods, soil amendments, and repellents.

In 2005, a civil penalty in the amount of $150,000 was issued to Voluntary Purchasing Group for distributing unregistered fertilizer products in Oregon. This enforcement action was based upon investigations conducted by Pesticides Division staff in 2002, 2003, and 2004, and involved 60 separate shipments of eight unregistered fertilizer products into Oregon.

In 2006, VPG added Weed-Out Lawn Fertilizer Plus Crab Grass Preventer to the Ferti-Lome line and the Hi-Yield line of dry insecticides and fertilizers was repackaged. Hi-Yield Turf & Ornamental Weed & Grass Stopper was also introduced in a larger, 35 lb size.

In the years from 2007 to 2009, VPG introduced a large number of new products including Triple Action Plus pesticide, Broad Spectrum Landscape & Garden Fungicide with expanded label recommendations, Over-The-Top Weed & Grass Killer, Weed-Free Zone liquid and pump spray and F-Stop Lawn Fungicide. New Hi-Yield products include Dutch Bulb Food, 38 Plus Turf Termite & Ornamental Insect Spray, Indoor/Outdoor Broad Use Insecticide, Dipel Dust biological insecticide, Improved Slug & Snail Bait, Tomato & Vegetable Food, Rose Fertilizer, Bone & Blood Meal, Agricultural Limestone, Blood Meal, Muriate of Potash, Copperas (Iron Sulphate), Dusting Wettable Sulphur, Improved Lime Sulphur Spray, Compost Maker, Imported Fire Ant Control Cont Deltamethrin, Triple Superphosphate, Turf Ranger Insect Control Granules, Turf & Ornamental Weed & Grass Stopper With Dimension, Pecan & Fruit Tree Food, Horticultural Hydrated Lime, Brush, Vine & Poison Ivy Killer, and Vegetable Flower, Fruit & Ornamental Fungicide. VPG also expanded its organic category under the Natural Guard brand with products: Lawn, Plant & Pet Insect Spray, and Organic Plant food.

In its 2012 catalog, the company has again introduced a number of new products. Under the Ferti-Lome brand, VPG has launched 2-N-1 Systemic for garden protection against pests and diseases, Garden Cote fertilizer, Mole Go Granules repellent, and HydroStretch soil amendment. The company's most recent launches under Hi-Yield brand are Nutsedge Control, Ornamental Weed Preventer, Systemic Insect Spray, and Systemic Insect Spray RTS. Under the Natural Guard brand, VPGhas recently launched Blood Meal, Bone Meal, Cottonseed Meal, Evergreen & Holly Food, Plant Food, Rose Food, Tomato & Vegetable Food, and Organic Spot Weeder.

Table 9-101: VPG's Sales of Pesticides and Related Products to Consumer Markets, 2011

Product category	$ Thousand	% Of total
FERTILIZERS		
Lawn	24,764	53.0
Garden	4,673	10.0
Total	29,434	63.0
OUTDOOR INSECTICIDES	6,942	15.0
HERBICIDES		
Lawn	4,246	9.0
Nonselective	4,246	9.0
Total	8,492	18.0
ALL OTHER-a	1,870	4.0
TOTAL	**46,740**	**100.0**

a- Includes rabbit and deer repellants and miscellaneous products.

MARKETING POLICIES

All distributors and retailers of VPG's products are required to own a percentage of company stock, and the cooperative currently has about 7,000 stockholders. The company's profits are paid out to patron-stockholders at the end of the fiscal year as dividends, according to patrons' sales volume of VPG products.

Company sales representatives market products and provide services to more than 80 distributors in 47 states (excluding California, Alaska, and Hawaii). The products of VPG are sold through locally owned family merchants, including independent lawn and garden centers, nurseries, hardware stores, and farm and feed stores. The company had total retail availability at more than 8,000 outlets in 2011. VPG does not market to mass merchandisers and retail chains, largely because they may not accept the cooperative's terms for doing business. Retailers associated with VPG must meet the minimum stock requirements, and the terms for sales to all retailers and distributors are either cash or C.O.D. VPG also does not offer its products for sale online. Their future strategy remains on the lines of selling through independent retail outlets only.

ADVERTISING

VPG had very limited TME in 2010 and 2011, all to support the Ferti-Lome line, with all of it used for spot TV advertising for Ferti-Lome fertilizers. In 2011, it was shown that VPG spent $1,000 to promote its NaturalGuard brand.

VPG has offered a cooperative advertising program with its distributors, arranged on an individual basis with the regional sales representative for Ferti-Lome products only. The advertising budget depends on a certain percentage of the purchases made by their distributors. VPG continues to offer ad slicks for virtually all of its products that are available in four different versions (color without copy, color with copy, gray without copy, and gray with copy).

FACILITIES

VPG's headquarters and manufacturing facilities are located in Bonham, TX. The cooperative employed 80 people in 2011.

OUTLOOK

VPG is expected to face increasing competition from rising presence and marketing power of mass marketers, hardware chains, wholesale clubs, and home centers, which continues to reduce the number and importance of the independent hardware and lawn and garden retailers that comprise VPG's distribution network. Additionally, a significant segment of VPG's customer base—farmers—is decreasing their purchases due to continued financial pressures on their industry. Through 2016, therefore, VPG's sales of consumer pesticides and fertilizers are expected to expand by 4.5% to $58.3 million.

Table 9-102: VPG's Outlook for Pesticides and Fertilizers, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	46.7	-
2016	58.3	4.5

WOODSTREAM CORP.

OVERVIEW

Headquartered in Lititz, PA, Woodstream Corp. manufactures and markets a broad portfolio of consumer and professional pest control, pet care and garden care products. In June 2003, Woodstream was acquired by private equity firm Brockway Moran & Partners in a partnership with management. Prior to this acquisition, Woodstream was an independent, privately held company that resulted from a management buyout in late 1999. The 2003 deal transferred ownership of Woodstream from the Ekco Group Inc., a supplier of kitchen, bake ware, and house ware items based in Nashua, NH, to a group of Woodstream executives.

The company continues to grow through acquisitions. In 2000 and 2001, respectively, Woodstream bought out two well-recognized bird feeder manufacturers, Hyde and K Feeder, as well as the DeerOff line of products. In 2005, the company acquired Fi-Shock, a manufacturer of electric and high-tensile fencing products that are used to contain and/or exclude livestock, pets and wildlife, including the Bird Repel system. The deal represented Woodstream's eighth acquisition since 1999, and was financed through a $121 million recapitalization led by Brockway Moran. In the same year, Woodstream entered into an agreement with California-based Bird-B-Gone to represent and provide installation support for the Bird Repel product line. In April 2007, Woodstream acquired the Mosquito Magnet line of products from American Biophysics Corp; the $6 million deal includes the Defender, Liberty and Liberty Plus models and the Net and Attractant consumables associated with these products. Also in 2007, Woodstream acquired Dr. T's Nature Products, a manufacturer of 16 unique, environmentally friendly pest repellents for both the consumer and commercial markets.

Woodstream Corporation has recently completed the acquisition of Senoret Group, Inc. and its related entities and brands TERRO and Sweeney's. The same is likely to be reflected in the company's annual financial report for FY 2012.

SALES AND PROFITS

Woodstream's products are sold at more than 100,000 retail locations throughout the United States, Canada and other international markets including Ace, Agway, Home Depot, Kmart, Lowes, Menards, Rite Aid and True Value. International sales represent approximately 10% of Woodstream's total sales, with the strongest sales in Canada and Europe. Although Woodstream also offers professional products, these represent about 10% of total sales. All products are sold under the company's own brand names.

While Woodstream releases limited financial information, total sales in 2011 are estimated to be $220 million, a growth of 5.5% as compared last year. Retail outlets and independent stores that had been cautious with their inventory level and rationalizing their offerings to the consumers last year, have ordered this year which has increased the overall sales.

With 59% of domestic sales from the Victor pest control line, the US consumer pest control sales in 2011, representing domestic sales to consumers of the company's Victor rodent control, indoor and outdoor insecticide, fungicide and other products, are estimated at $130 million. Woodstream has an in-house sales force of nine representatives.

CONSUMER PESTICIDES AND FERTILIZERS

Woodstream is the world leader in least toxic pest control, manufacturing, and marketing two major product lines, Victor and Havahart, in addition to newly acquired brands.

The Victor line represents patented, low-toxicity solutions composed of mint oil, fatty acid soaps, and pheromone attractants that focuses on fly, moth, roach, and ant control. Fly control products include bottle traps, sticky traps, a fly scoop, fly lights, and an aerosol. In 2005, the company launched the Victor Fly Magnet and Victor Yellowjacket Magnet bag traps, offering easy disposal of flies and yellowjackets with no mess. Moth control products include a pantry trap and clothes traps containing a pheromone lure. Roach control products include traps and bait stations, crack and crevice powders, Concern Citrus Home Pest Control Spray, Concern Diatomaceous Earth Crawling Insect Killer and Victor Poison-Free. Ant control products include baits and powders, Safer Home Patrol Insect Killer and an aerosol. The line also includes a mouse snap trap—the original core Woodstream product—as well as a novel electronic mouse trap that uses smart electronics for a fast, humane, safe, clean catch with easy disposal. According to a survey by Southwest Missouri State University, 98% of mechanical mouse-killing devices sold in the Wal-Mart chain are Victors. Victor mouse traps are also sold in the secondary market, with Colorado-based Interplanetary Pet Products adding plastic paddles to them and re-selling them as Snappy Trainers, a product that startles pets to keep them off furniture; more than 150,000 Snappy Trainer packages are sold each year. New products introduced in 2007 include the Victor Power Kill Rat Trap, Victor Corner Cat, Victor Yellow Jacket Magnet and Victor Fly Magnet Bag Traps, Victor Multi Cat and Victor Poly Cat.

Victor fertilizers and herbicides are sold mainly under the Poison-Free, Safer and Concern brands. Key products include Fish Emulsion Fertilizer, Granular 1.5% Iron Plus Chelate Fertilizer, 5.4 % Liquid Iron Plus Fertilizer, Pentrex Multi-Purpose Fertilizer, Vitamin B-1 Plus, Vitamin B-1 for Transplanting, and Bud & Bloom Acid.

The Havahart line includes Deer Off and Hyde Kfeeder, products that accommodate consumers' needs to manage their interactions with pets and wildlife. This line consists of caring control products such as cage traps, repellents, training devices, bird feeders, and pet housings. New products from 2007 since date include the Havahart Easy Set Live Animal Cage Trap, Havahart Liquid Critter Ridder, and Havahart Granular Critter Ridder, Havahart Deer Off II deer repellent.

Acquired in 2007, Mosquito Magnet is a leading biting insect trap in the consumer/residential market and according to Woodstream, is the only long-term solution that is scientifically proven to effectively reduce mosquitoes and other biting insects. The line represents the first propane-powered mosquito trap for consumer use and contains Lurex3, the only EPA-approved attractant specifically formulated to capture the invasive Asian tiger mosquito, a carrier of West Nile Virus. Mosquito Magnet's patented cartridges gradually release attractants using an advanced design to ensure that cartridge replacement and propane refilling are synchronized. The new Dr. T.'s Nature Products line includes 16 distinct products that address snakes, rats and mice, mosquitoes, moles, bats, birds, squirrels, rabbits and cobwebs.

Woodstream Corporation has 60 organic products in their line. These products come under the Safer, Concer, Ringer and Havahart brand names.

In 2009, Woodstream Corporation's Safer Brand released ready-to-spray organic pest control concentrates. Safer Brand Bug Patrol, Mosquito & Tick Killer and Grub Killer are used in ready-to-spray concentrate formulations that connect to a garden hose for simple organic pest control. The organic insecticides provide quick, consistent coverage throughout a garden or yard, without the hand fatigue associated with spray bottles.

The 2010 launches by Woodstream Corp. include Victor Kill & Seal Mouse Trap and Safer Band EndALL.

Table 9-103: Woodstream's Sales of Pesticides and Related Products to Consumer Markets, 2011

Product category	**$ Million**	**% Of total**
VICTOR SAFE		
Rodent control	45	20.4
Indoor insecticide	19	8.5
Fertilizers	20	9.1
Outdoor insecticides	11	4.8
Fungicides	11	4.8
Other-a	25	11.4
Total	130	59.0
HAVAHART	60	27.2
MOSQUITO MAGNET	7	3.2
DR. T.'S	5	2.4
OTHER-b	18	8.2
TOTAL-c	**220**	**100.0**

a- Includes insect repellents and traps, among other products.
b- Includes international and professional sales as well as sales of fencing and bird feeders.
c- Totals may not add due to rounding.

Table 9-104: Woodstream's Sales of Pesticides to Consumer Markets, 2011		
Product category	**$ Million**	**% Of total**
VICTOR SAFE		
Rodent control	15	17
Indoor insecticide	19	22
Fertilizers	20	23
Outdoor insecticides	11	13
Fungicides	11	13
Total	76	86
MOSQUITO MAGNET	7	8
DR. T.'S	5	6
TOTAL	**88**	**100**

MARKETING POLICIES

Woodstream's products are marketed through distributors to leading retailers in the United States, as well as online through the company's websites. By joining Woodstream's mailing list, purchasers can save 10% on all online purchases. In 2009, they launched a new website mosquitomagnet.com for customer awareness for mosquito-borne diseases and other related information. New product launches have been low for the last couple of years, the company is ensuring that they take reasonable amount of risk in order to sustain in the market.

ADVERTISING

Woodstream had no TME in 2010. In 2011 the company spent a minor amount of advertising to support the Mosquito Magent and the Victor line.

FACILITIES

Woodstream operates warehousing and administration facilities in Lititz, PA, with satellite warehouse operations in Missouri and California. Manufacturing for Woodstream products is done in Lititz, PA, and in Scarborough, Toronto, Canada. Woodstream employs approximately 235 persons.

OUTLOOK

Over the next five years, Woodstream will continue to exceed the average rate of growth in the market as the company maintains a brisk pace of acquisition activity and enjoys strong sales of its established brands. Woodstream's low toxicity Victor line will grow by an estimated 6% per year on strong consumer appeal of low toxicity lawn and garden products. Gains are being driven by consumer concern over household usage of poisons. Woodstream will particularly benefit from this trend, with an inexpensive, environmentally friendly product sold by more than 100,000 U.S. retailers. In 2016, the company's U.S. consumer pesticide sales should reach $118.0 million.

Table 9-105: Woodstream's Outlook for Pesticides and Fertilizers, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	88.0	-
2016	118.0	6.0

ZEP, INC.

OVERVIEW

Zep Manufacturing Company was started in 1937 as a janitorial supplies company in Atlanta. Zep manufacturing was merged with National Services Industries Inc. (NSI), then known as National Linen Service, in 1962. Enforcer was acquired by NSI in July, 1997 in its chemical division to expand Zep's presence into retail.

The brands: Zep, Enforcer, Selig, and National Chemical were maintained under the NSI Chemical Group until November, 2001, when NSI spun off its Lighting and Specialty Chemicals Divisions to create Acuity Brands Inc., with headquarters in Atlanta, GA. Acuity Lighting Group (ALG) is a world leader in lighting fixtures and includes brands such as Lithonia Lighting, Holophane, Peerless, Hydrel, American Electric Lighting, and Gotham.

In 2007, Acuity Brands Inc. decided to separate Acuity Specialty Products, Inc. from its sister company, Acuity Brands Lighting Inc., and rename the new independent, public company Zep Inc. Zep, Inc. was spun off from Acuity Brands, Inc. effective October 31, 2007 through a distribution of 100% of the common stock of Zep to Acuity Brands stockholders. Following the distribution, Zep became an independent a leading provider of specialty chemicals with operations in North America, Canada, Italy, and Benelux, and includes three divisions: Zep, Enforcer, and Selig Industries.

Zep Inc. is a leading provider of cleaning and maintenance chemicals and related products and services. The Enforcer division is the subject of this profile. Enforcer manufactures and markets insecticides, herbicides, and home cleaning products for consumer markets.

SALES AND PROFITS

Zep Inc. had revenues of $646 million for the fiscal year ended August 31, 2011, grown by a compounded annual growth rate of 13.6% in the past two years. The company had a net income of $17.4 million in 2011. The sales in the United States were 79% of the total, sales in Canada were 12%, and sales in Europe accounted for 9%. The Enforcer brand provides retail plumbing and pest and weed control products, which are sold through home improvement retailers. Enforcer is a 100% retail brand and accounts for around 15% of the Zep Inc's retail sales. The sales of Enforcer pesticides have declined slightly in the last two years, and are estimated at $9.7 million in 2011.

CONSUMER PESTICIDES AND FERTILIZERS

Enforcer Products manufactures more than 400 chemical items, under the categories: insecticides, herbicides, plumbing, and lawn and garden.

The products are sold through the nation's leading hardware, home center, grocery, and mass retailers under the Enforcer brand. The plumbing and cleaning categories, which primarily involve products for unclogging drains are not germane to this report. The remaining categories marketed by Enforcer are insecticides, and herbicides. The Enforcer brand has a large array of products based on various actives that are sourced from third-party manufacturers.

<u>Home Pest and Roach</u>: This line of Enforcer Products include BugMax Insect Killers, Home Pest Control concentrate and fogger, Ant & Roach Killer, Delta Force roach killer, 20 Second Roach Killer, RoachMax Stations, OverNite Pest Control, Four Hour Fogger, Roach Ridd, Bed Bug Spray, and Insect Glue Trap.

<u>Ant Control</u>: This line of products especially focusing on ant control includes AntMax Bait Stations, Ant & Insect Barrier, Ant Kill & Barrier, Fire Ant Bait, Fire Ant Granules, and Ant & Roach Hawaiian.

<u>Outdoor & Flying Insect</u>: This line includes BugMax Concentrate, Wasp & Hornet Spray, Was & Yellow Jacket foam spray, Flying Insect Killer, Moquito & Flying Insect Killer Concentrate, and EverLast Snail Bait.

<u>Flea and Tick</u>: Enforcer's flea and tick line of products have Flea Sprays for Homes, Flea Fogger with FGR, OverNite Flea Trap, Flea Powder for Carpets, Flea Spray for Carpets, Flea Drops, Flea & Tick Shampoo, Flea & Tick Spray for dogs, and Flea Spray for Yards.

<u>Herbicides</u>: Enforcer's herbicide products include Roots & All Ultimate Grass & weed Killer, Scorcher Total Vegetarian Killer, Brush Killer Concentrate, Poison Ivy & Oak, Next Day Concentrate, and Weed Shot.

In addition, Enforcer has a number of plumbing products for drains, clogs and septic systems. Enforcer products have discontinued the Rodenticides line of products due to non-compliance with the tighter EPA regulations.

Table 9-106: Enforcer's Estimated U.S. Sales of Pesticides and Related Products to Consumer Markets by Product Category, 2011		
Product category	**$ Thousand**	**% Of total**
INSECTICIDES		
Outdoor	4,366	45
Indoor	4,366	45
Pet insecticides	485	5
Total	9,217	95
HERBICIDES	485	5
TOTAL	**9,702**	**100**

MARKETING POLICIES

Zep, Inc. sells its cleaning and maintenance solutions directly to approximately 350,000 customers. Home Depot is Zep Inc.'s largest customer and it accounted for 10% of net sales in fiscal 2011.

ADVERTISING

Enforcer had only a limited amount of traceable media expenses for 2010 and 2011.

FACILITIES

Zep Inc. is headquartered in Atlanta, GA, and had approximately 2,300 employees as of August 31, 2011, including 1,720 in the United States, 220 in Canada, and 360 in Europe. The company estimates that 210 were covered by collective bargaining agreements in the United States and Europe.

Zep manufactures its products in eight facilities located in the United States, Canada, the Netherlands, and Italy. The five facilities in the United States produce approximately 90% of the company's manufactured product. The company has extensive research facilities at its Atlanta headquarters, with 20 full-time chemists engaged in product development and product testing. Zep's research and development expenditures ranged between $1.2 million and $1.4 million during the three years ended August, 2011.

Enforcer Products are manufactured in Atlanta and Emerson, Georgia. Enforcer is a key employer in the North Georgia region. Products are shipped throughout the United States, Canada, and also to many additional destinations throughout the world. Enforcer has 30 full-time chemists and extensive research and testing processes to ensure better product performance.

OUTLOOK

Zep is now an independent business with its mission and vision strategically defined. The firm is now positioned to be a more dynamic market-driven enterprise that delivers superior products and customer service while improving financial results.

Enforcer Products' expects its pesticides sales to grow by average annual rate of 3% in the next five years. Sales of Enforcer's pesticides are expected to be around $11.2 million in 2016.

Table 9-107: Zep's Outlook for Pesticides, 2011 to 2016

Year	$ Million	Average annual growth, %
2011	9.7	-
2016	11.2	3.0

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1. INTRODUCTION

Section 2 of *Consumer Markets for Pesticides and Fertilizers: U.S. Market Analysis and Opportunities* summarizes the results of 1,552 consumer interviews conducted online. The consumer interviews were conducted by The Ipsos Observer, Westbury, NY.

A listing of the states that are included in each of the geographic regions is provided in Appendix 5.

A comment sheet is provided in Appendix 7. Any opinions or comments concerning this study are welcome.

All the appendices mentioned above appear at the end of this study.

PURPOSE

The primary purpose of conducting this research is to monitor activity within the consumer pesticide and fertilizer markets. Based on the data provided in this study, subscribers will have an independently gathered "snapshot" of end user activities and opinions concerning the purchase of various pesticides, fertilizers, and related products.

SCOPE

This report covers pesticides and fertilizers used by consumers on lawns, gardens, and houseplants and in households.

The consumer findings for this study are based on responses from a balanced sample of a designated consumer panel. Although data concerning U.S. consumers' usage of and attitudes toward products covered in this study are provided, it is not the intent of this study to present statistically significant findings concerning the entire U.S. market. Therefore, caution is advised in projecting the findings from this study to the U.S. consumer population.

ORGANIZATION

This volume is grouped into five major sections. The first section, a brief Consumer Overview of consumer findings, offers highlights from the consumer survey data and outlines the general structure that is followed throughout in presenting detailed results from the surveys. The next four sections discuss the four major product categories: fertilizers, herbicides, insecticides, and other products. The other products section includes rodenticides, fungicides, and insect repellents.

DATA PRESENTATION

The data provided in this volume is organized into tables that summarize consumer responses to the questions shown in the questionnaire. Each section is divided into a written summary and tables, with the summary appearing ahead of the tables within each section. It is suggested that subscribers refer to the questionnaire to determine the specific wording of the questions before analyzing the results presented in the tables.

All data in the tables are broken down by several demographic factors and summarized as total responses to the questions. Because multiple answers are often given to questions such as "main reason for buying brand," the responses on some demographic breakdowns add to more than the total shown. When only single responses are given, the total sum percentage may vary slightly due to rounding.

The results of the consumer interviews are broken down by four demographic factors: geographic regions, dwelling, population density, and family income, as shown in the table headings on the following page.

PRODUCT CATEGORIES

For each product category, the following information from the consumer interviews is presented:

- Consumer purchases. This category breaks down the number of respondents who purchased at least one unit of the product within the past 12 months. Also included as part of this category are those respondents who were unable to identify when the product was last purchased but were able to recall specific product information. A summary of the demographic characteristics of those who purchased products is also provided.
- Brand recollection. This category summarizes respondents' identification of the brand of each product last purchased.
- Product form. Where applicable, a brief summary of product form purchased is included.
- Product usage. This category provides a listing of the different types of applications for the product.
- Retail outlets. A summary of the type of retail outlet where the product was last purchased is supplied.
- Retail outlet selection criteria. This category includes a summary of reasons stated by respondents for purchasing products from a specific retail outlet.
- Other data. Where applicable, brief summaries are included of the most recently purchased product types, types of plants on which the products were used, problem pests, problem weeds, package sizes, and lawn care service usage.

Figure 1-1: Example of Column Headings in Survey Tables

	Geographic regions				Dwelling				Population density			Family income				
Total	North-east	Mid-west	South	West	One-family house	Two-family house	Three+ family house	Mobile home/ trailer	Urban SMSA	Suburban SMSA	Rural cnty	Under $25k	$25k to <$50k	$50k to<$75k	$75k to<$100k	$100K or more

ACCURACY

The accuracy of the data in the consumer interviews varies with the number of responses. In general, the higher the number of respondents buying a product, the greater the reliability of the information.

Table 1-1: Number of Households Interviewed that Purchased Specific Consumer Pesticides and Fertilizers Within the Previous Year by Product Category, 2011	
Product category	**Respondents-a**
Lawn fertilizers	796
Insect repellents	752
Lawn herbicides	702
Garden fertilizers	683
Pet insecticides	654
Houseplant fertilizers	619
Household insecticides	627
Garden and nonselective herbicides	543
Lawn and garden insecticides	508
Rodenticides	333
Houseplant insecticides	317
Outdoor nonplant insecticides	267
Fungicides	217

a- Calculation method: Each number is the sum of (1) the number of respondents buying less than six months ago + (2) the number buying six months to one year ago.

NOTE: Responses are based on interviews with 1,552 households.

Not all households are potential consumers of the products covered in this survey. Only those maintaining lawns are potential purchasers of lawn maintenance products, and only households maintaining houseplants are potential consumers of houseplant maintenance products. This inevitably affects the base figure (the total number of respondents analyzed) for each product category. The base number used for purposes of analysis within the product categories is defined as those respondents who purchased the product within the past 12 months or who failed to identify the time period within which they purchased the product, but were able to provide specific information relating to the product. Within each product category, the same base figure is used throughout to provide the most accurate frame of reference and consistent interpretation of the data.

2. CONSUMER OVERVIEW

It is estimated that more than three-quarters of the households in the United States engage in some type of lawn, gardening, and/or plant maintenance activity. The level of care given through such activity depends on several factors and can range from merely watering the lawn or planting to following a strict schedule of treatment with fertilizers and pesticides.

LAWN AND GARDEN MAINTENANCE

About 78% of the respondents to a survey by Kline & Company use fertilizers on at least one area of their vegetation, with lawns ranking the highest at 70% and flowers ranking second at 28%. Vegetables, trees, shrubs, and roses are all fertilized by 18% to 21% of those answering the survey.

With regard to frequency of lawn and garden maintenance tasks, lawn mowing occurs most frequently, with 41% of respondents indicating that the lawn is mowed once per week, 14% mowing every 10 days, and 21% mowing every two weeks.

Fertilizing, spraying for weeds, and treating for insects are most likely done once or twice per year.

Table 2-1: Number of Times Respondents Used Lawn Fertilizers, Plant/Shrub Fertilizers, Sprayed Weeds, Treated for Household Insects, and Sprayed Outdoor Insects in 2011

	% Of respondents				
Frequency	Lawn fertilization	Plant/shrub fertilization	Spraying for weeds	Treating for household insects	Outdoor insect spraying
Once per year	22.4	22.1	15.3	15.1	14.6
Twice per year	24.2	20.0	17.6	18.2	16.8
Three times per year	8.2	9.0	12.8	9.7	8.6
Four times per year	8.5	9.0	15.1	18.2	13.7
Other	4.6	6.6	9.9	14.4	13.7
Never	32.1	33.4	29.3	24.5	32.6

LAWN CARE

About 50% of the respondents indicated that the male head of the household was responsible for fertilizing the lawn, 16% indicated that the female head of the household was responsible for lawn fertilizing, while 14% said a lawn care service was responsible.

When a lawn care service was used, the lawn was serviced six times or more during the year 23% of the time, five times per year 15% of the time, four times per year 24% of the time, three times per year 11% of the time, and two times per year 27% of the time.

Respondents who use a lawn care specialist for fertilizing the lawn were asked if the vendor offered other services, such as mowing, trimming hedges and shrubs, mulching, or raking leaves. About 68% indicated that other services were offered by their vendors, while 32% said that their vendor did not offer other services.

COST OF LAWN CARE SERVICE

About 52% of respondents said that they spent between $21.00 and $50.00 per visit. Breaking this down further, 19% of respondents spend between $31.00 and $40.00 per visit, and 20% spend between $41.00 and $50.00 per visit. About 13% spent between $21.00 and $30.00 per visit, while 34% spent more than $51.00 per visit.

FUTURE PLANS

Of those respondents currently using a lawn care service, 78% said they would use a service the next year, 18% said they were not sure of their plans, and 4% said they would not be using a lawn care service the next year.

PEST CONTROL SERVICE

All respondents to the survey were asked whether they had used an indoor pest control service in the past 12 months, and 74% said they had not. Of the 26% that used a pest control service indoors, the greatest number is in the South, with 32% of the southern respondents stating they used the service.

CONSUMER PURCHASES

Table 2-2 depicts the frequency of use for each product analyzed. The data is presented as a U.S. total and is divided by region. The number of users is the same as shown in Table 1-1. The percentages in Table 2-1 are based on the total number of analyzed respondents in the study (1,552), including the non-responses, to maintain a constant denominator in the percentage calculations. Most of the other tables in the report use a base sample that has netted out the non-responses. That could not be done in this table due to the need to maintain a constant denominator in the percentage calculations.

Due to environmental conditions, the South accounts for the majority of consumer purchases of fertilizers and pesticides in 2011, followed by the Midwest.

The types, amount, and number of fertilizers and pesticides purchased in a given year can vary greatly from household to household, depending on maintenance activity, environmental conditions, and individual considerations. Pet insecticides, lawn fertilizers, insect repellents, garden fertilizers, and lawn herbicides are purchased by more than 45% of the respondents in 2011. Table 2-3 compares occurrence of consumer purchases by product category in 2003, 2005, 2007, 2009, and 2011.

BRAND RECOLLECTION

Brand recollection of the fertilizers and pesticides purchased by consumers varies significantly by product category and from year to year. In 2009, houseplant fertilizers were the most identifiable, with 92% of the respondents able to remember what brand they last purchased in that category. Garden fertilizers and pet insecticides both ranked high in brand recognition, with 91% each, remembering the brand they last purchased. Houseplant insecticides were least memorable, with 64% of the respondents able to recall what brand they bought in 2009. Table 2-4 summarizes brand recollection by product category for 2001, 2003, 2005, 2007, and 2009.

Table 2-2: Consumer Purchases of Fertilizers and Pesticides by Geographic Region, 2011

	Number of users and percent of total analyzed respondents by region-a				
Product category	**Northeast**	**Midwest**	**South**	**West**	**Total**
All analyzed respondents	304	367	549	332	1,552
	19.6	23.6	35.4	21.4	100.0%
Insect repellents	161	194	282	115	752
	21.4	25.8	37.5	15.3	100.0%
Household insecticides	127	125	269	106	627
	20.3	19.9	42.9	16.9	100.0%
Lawn fertilizers	153	192	298	153	796
	19.2	24.1	37.4	19.2	100.0%
Garden fertilizers	139	165	251	128	683
	20.4	24.2	36.7	18.7	100.0%
Houseplant fertilizers	125	143	232	119	619
	20.2	23.1	37.5	19.2	100.0%
Lawn herbicides	133	175	267	127	702
	18.9	24.9	38.0	18.1	100.0%
Lawn and garden insecticides	89	108	230	81	508
	17.5	21.3	45.3	15.9	100.0%
Garden herbicides	105	125	206	107	543
	19.3	23.0	37.9	19.7	100.0%
Rodenticides	78	94	144	66	382
	20.4	24.6	37.7	17.3	100.0%
Outdoor nonplant insecticides	56	63	98	50	267
	21.0	23.6	36.7	18.7	100.0%
Pet insecticides	145	166	298	153	762
	19.0	21.8	39.1	20.1	100.0%
Houseplant insecticides	69	62	125	61	317
	21.8	19.6	39.4	19.2	100.0%
Fungicides	38	46	85	48	217
	17.5	21.2	39.2	22.1	100.0%

a- Calculation method: The method is to find the sum of (1) the number of respondents purchasing less than six months ago, plus (2) the number of respondents purchasing between six months and one year ago, divided by (3) the total number of analyzed respondents, including non-responses. Non-responses are included to maintain a constant total sample base on which to calculate percentages, since the number of non-responses changes with each question.

Kline

Table 2-3: Households Purchasing Consumer Pesticides and Fertilizers by Product Category, 2003 to 2011 (Selected Years)

	% Of total respondents-a				
Product category	**2003**	**2005**	**2007**	**2009**	**2011**
Pet insecticides	65	43	66	67	70
Lawn fertilizers	50	52	45	52	51
Insect repellents	56	54	47	49	49
Garden fertilizers	41	46	39	45	44
Lawn herbicides	37	41	36	46	45
Houseplant fertilizers	40	39	35	41	40
Household insecticides	53	52	47	37	40
Nonselective and garden herbicides	26	28	28	36	35
Lawn and garden insecticides	31	34	33	31	33
Rodenticides	27	25	25	23	25
Houseplant insecticides	14	17	12	18	20
Outdoor nonplant insecticides	17	21	19	15	17
Fungicides	13	13	9	12	14

a- Calculation method: The method is to find the sum of (1) the number of respondents purchasing less than six months ago, plus (2) the number of respondents purchasing between six months and one year ago, divided by (3) the total answering the question after netting out the non-responses.

NOTE: The 2003 respondent base is 1,540 households; the 2005 base is 1,504 households; and the 2007 base is 1,658 households, the 2009 respondent base is 1,583 households, and the 2011 respondent base is 1,552 households.

Table 2-4: Brand Recollection of Consumer Pesticides and Fertilizers by Product Category, 2003 to 2011 (Selected Years)

	% Of total respondents-a,b				
Product category	**2003**	**2005**	**2007**	**2009**	**2011**
Houseplant fertilizers	94	90	92	92	93
Garden fertilizers	86	83	88	91	89
Pet insecticides	98	98	86	91	90
Household insecticides	90	89	92	90	92
Insect repellents	95	93	94	89	89
Lawn fertilizers	83	79	82	88	85
Outdoor nonplant insecticides	81	77	88	87	85
Rodenticides	85	73	84	86	84
Lawn and garden insecticides	80	76	84	86	87
Nonselective and garden herbicides	80	78	86	85	85
Lawn herbicides	74	75	76	85	82
Fungicides	58	58	71	72	72
Houseplant insecticides	72	73	67	64	71

a- Percentage of respondents who purchased a product in a given category and were able to identify the brand. The number of purchasing respondents differ from category to category.
b- The calculation method uses (1) the number of total analyzed respondents for the category less [(2) the "don't know" and (3) the "no answer" respondents] all divided by (1) the total number of analyzed respondents for the category.

NOTE: The 2003 respondent base is 1,540 households; and the 2005 base is 1,504 households, the 2007 respondent base is 1,658 households, the 2009 respondent base is 1,583 households, and the 2011 respondent base is 1,552 households..

For additional information concerning brands purchased, please refer to the specific product sections of the report.

RETAIL OUTLETS

Home improvement centers and discount or mass merchandise stores are the leading retail outlets for the purchase of fertilizers and pesticides, ranking first or second in every product category except pet insecticides where 49% say they purchase from veterinarians. The importance of these two types of stores in sales of these products continues to increase as consumers look for both convenience of having everything they need and value pricing as they supplant more traditional independent outlets. Lawn and garden centers are also primary outlets for consumer pesticides and fertilizers, with their level of importance varying according to the technical nature of the product category.

For additional information concerning retail outlets, please refer to the specific product sections of the report.

Table 2-5: Retail Outlet Used by Product Category, 2011

Product category	Respon-dent base	Discount/ mass-merch. store	Lawn and garden center	Super-market/ grocery	Home improve-ment	Hard-ware store	Farm supply store	Drug-store	Mail order catalog	Ware-house club	Sport goods/ camping	Veteri-narian	Pet or pet supply store	On-line pet supplier/ Internet	Other	Don't know/no answer
Lawn fertilizers	796	274	60	11	338	34	30	-	6	13	-	-	-	-	14	16
	100.0%	35.1%	7.7%	1.4%	43.3%	4.4%	3.8%	-	0.8%	1.7%	-	-	-	-	1.8%	2.0%
Garden fertilizers	683	189	117	12	261	25	33	-	5	7	-	-	-	-	11	23
	100.0%	28.6%	17.7%	1.8%	39.5%	3.8%	5.0%	-	0.8%	1.1%	-	-	-	-	1.7%	3.4%
Houseplant fertilizers	619	258	62	27	188	17	12	-	6	14	-	-	-	-	9	26
	100.0%	43.5%	10.5%	4.6%	31.7%	2.9%	2.0%	-	1.0%	2.4%	-	-	-	-	1.5%	4.2%
Lawn herbicides	702	188	58	19	306	35	34	-	2	15	-	-	-	-	15	30
	100.0%	28.0%	8.6%	2.8%	45.5%	5.2%	5.1%	-	0.3%	2.2%	-	-	-	-	2.2%	4.3%
Garden herbicides	543	149	38	22	215	38	20	-	6	13	-	-	-	-	11	31
Or Non-selective	100.0%	29.1%	7.4%	4.3%	42.0%	7.4%	3.9%	-	1.2%	2.5%	-	-	-	-	2.1%	5.7%
Fungicides	196	45	22	7	66	13	15	-	3	3	-	-	-	-	5	17
	100.0%	25.1%	12.3%	3.9%	36.9%	7.3%	8.4%	-	1.7%	1.7%	-	-	-	-	2.8%	8.7%
Lawn and garden insecticides	508	137	40	15	196	25	23	-	20	11	-	-	-	-	12	29
	100.0%	28.6%	8.4%	3.1%	40.9%	5.2%	4.8%	-	4.2%	2.3%	-	-	-	-	2.5%	5.7%
Outdoor non-plant insecticides	267	84	18	13	86	16	11	-	5	8	-	-	-	-	5	21
	100.0%	34.15	7.3%	5.3%	35.0%	6.5%	4.5%	-	2.0%	3,.3%	-	-	-	-	2.0%	7.9%
Houseplant insecticides	317	102	30	21	89	13	10	-	7	17	-	-	-	-	8	20
	100.0%	34.3%	10.1%	7.1%	30.0%	4.4%	3.4%	-	2.4%	5.7%	-	-	-	-	2.7%	6.3%
Household insecticides	627	261	27	58	176	33	8	-	9	15	-	-	-	-	15	25
	100.0%	43.4%	4.5%	9.6%	29.2%	5.5%	1.3%	-	1.5%	2.5%	-	-	-	-	2.5%	4.0%
Rodenticides	382	131	18	23	108	33	19	-	3	10	-	-	-	-	13	24
	100.0%	36.6%	5.0%	6.4%	30,2%	9.2%	5.3%	-	0.8%	2.8%	-	-	-	-	3.6%	6.3%
Pet insecticides	762	224	20	44	17	9	30	-	11	7	-	269	105	26	9	10
	100.0%	41.1%	3.7%	8.1%	3.1%	1.7%	5.5%	-	2.0%	1.3%	-	49.4%	19.2%	4.8%	1.7%	1.3%
Insect repellents	752	358	34	52	181	37	20	-	7	15	-	-	-	-	17	31
	100.0%	49.7%	4.7%	7.2%	25.1%	5.1%	2.8%	-	1.0%	2.1%	-	-	-	-	2.4%	4.1%

NOTE: Table contains multiple mentions. Blank space indicates "not applicable."

Kline

3A. LAWN FERTILIZERS

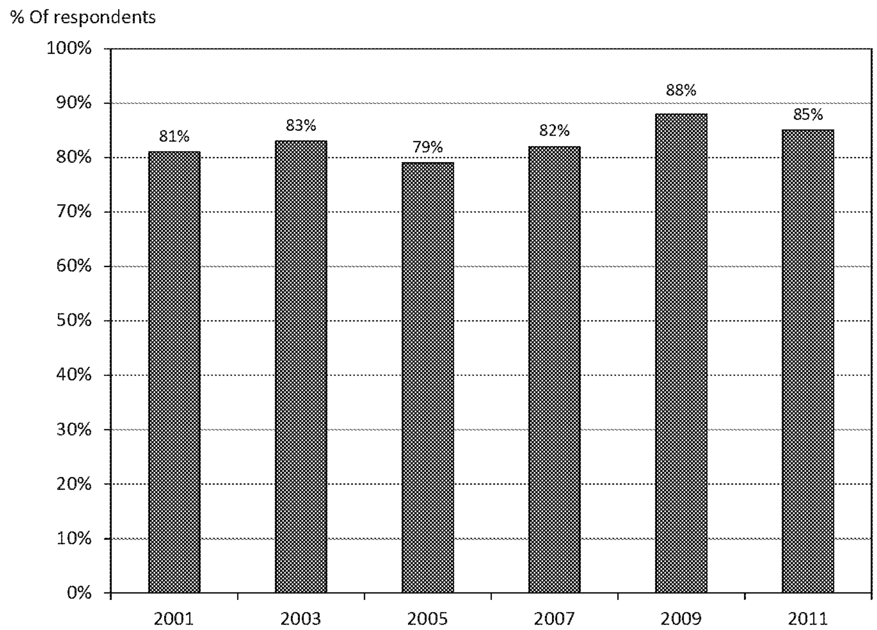
OVERVIEW

Within the past 12 months, lawn fertilizers were purchased by 51% of the respondents, a decrease of 1% from 2009. Approximately 32% of the answering respondents indicated that they did not use lawn fertilizers in the past 12 months, an increase from 31% in 2009.

Table 3A-1: Lawn Fertilizers - When Last Bought?

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Base: Total Respondents	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
Total answering	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
One year ago or less (net)	796	153	192	298	153	664	46	56	30	578	170	48	149	194	160	147	146
	51.3%	50.3%	52.3%	54.3%	46.1%	56.6%	57.5%	26.0%	35.7%	50.9%	55.4%	44.0%	39.4%	47.1%	58.8%	59.5%	60.1%
				E		HI	HI		h		L			M	MN	MN	MN
Less than 6 months ago	444	81	102	165	96	382	18	31	13	328	93	23	66	110	93	81	94
	28.6%	26.6%	27.8%	30.1%	28.9%	32.6%	22.5%	14.4%	15.5%	28.9%	30.3%	21.1%	17.5%	26.7%	34.2%	32.8%	38.7%
						gHI	h			I	I			M	MN	Mn	MN
6 months to 1 year ago	352	72	90	133	57	282	28	25	17	250	77	25	83	84	67	66	52
	22.7%	23.7%	24.5%	24.2%	17.2%	24.0%	35.0%	11.6%	20.2%	22.0%	25.1%	22.9%	22.0%	20.4%	24.6%	26.7%	21.4%
		E	E	E		H	FHI		h							n	
More than 1 year ago	259	36	66	100	57	213	11	24	11	196	43	20	63	69	49	34	44
	16.7%	11.8%	18.0%	18.2%	17.2%	18.2%	13.8%	11.2%	13.1%	17.3%	14.0%	18.3%	16.7%	16.7%	18.0%	13.8%	18.1%
			B	B	b	H											
Do not use product	497	115	109	151	122	296	23	135	43	362	94	41	166	149	63	66	53
	32.0%	37.8%	29.7%	27.5%	36.7%	25.2%	28.8%	62.8%	51.2%	31.9%	30.6%	37.6%	43.9%	36.2%	23.2%	26.7%	21.8%
		CD			CD			FGi	FG				NOPQ	OPQ			
Sigma	1,552	304	367	549	332	1,173	80	215	84	1,136	307	109	378	412	272	247	243
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Figure 3A-1: Percentage of Respondents Who Purchased Lawn Fertilizer During the Last 12 Months, 2001 to 2011



GEOGRAPHIC REGION

The South, Midwest, and Northeast had the highest reported lawn fertilizer usage with 54%, 52%, and 50%, respectively, reporting purchasing in 2011, followed by the West where only 46% said they purchased lawn fertilizer in 2011.

POPULATION DENSITY

Fifty-five percent of suburban respondents, 51% of urban respondents, and 44% of rural respondents purchased lawn fertilizers within the past 12 months. In 2009, 55% of the suburban respondents purchased lawn fertilizers during the same time period.

FAMILY INCOME

As income levels increase, so does the purchase incidence of lawn fertilizers. Sixty percent of the income group above $100,000 report purchasing lawn fertilizer in 2011. In the income range between $75,000 and $100,000, 60% reported purchasing lawn fertilizer in 2011, an increase from 52% in 2009.

BRAND RECOLLECTION

Scotts Turf Builder was the leading brand reported by respondents as the brand purchased in 2011, with 60% reporting purchasing it. This is a decrease from 65% that was reported for this brand in 2009. Ace Hardware was reported as the second most purchased brand with 12% reporting purchasing in 2011. Scotts Turf Builder was listed most often in the Northeast where 64% in this region reported purchasing it in 2011.

Table 3A-2: Lawn Fertilizers - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	796	153	192	298	153	664	46*	56*	30*	578	170	48*	149	194	160	147	146
Don't know	116	20	31	42	23	96	8	9	3	83	23	10	20	29	28	23	16
	14.6%	13.1%	16.1%	14.1%	15.0%	14.5%	17.4%	16.1%	10.0%	14.4%	13.5%	20.8%	13.4%	14.9%	17.5%	15.6%	11.0%
Total answering	680	133	161	256	130	568	38*	47*	27**	495	147	38*	129	165	132	124	130
Ace Hardware	78	18	15	27	18	56	11	11	0	55	18	5	22	13	16	8	19
	11.5%	13.5%	9.3%	10.5%	13.8%	9.9%	28.9%	23.4%	-	11.1%	12.2%	13.2%	17.1%	7.9%	12.1%	6.5%	14.6%
							F	F					NP				nP
American Green	34	10	3	13	8	23	3	6	2	29	5	0	5	4	6	6	13
	5.0%	7.5%	1.9%	5.1%	6.2%	4.0%	7.9%	12.8%	7.4%	5.9%	3.4%	-	3.9%	2.4%	4.5%	4.8%	10.0%
		C		c	c			F									mNo
The Andersons	16	5	1	8	2	10	3	3	0	13	3	0	1	2	1	4	8
	2.4%	3.8%	0.6%	3.1%	1.5%	1.8%	7.9%	6.4%	-	2.6%	2.0%	-	0.8%	1.2%	0.8%	3.2%	6.2%
		c		c			F	F									MNO
Best	18	6	1	9	2	13	3	1	1	15	3	0	1	3	6	1	7
	2.6%	4.5%	0.6%	3.5%	1.5%	2.3%	7.9%	2.1%	3.7%	3.0%	2.0%	-	0.8%	1.8%	4.5%	0.8%	5.4%
		C		c			F								mp		MnP
Fertilome	18	6	2	6	4	15	2	1	0	14	3	1	1	3	5	2	7
	2.6%	4.5%	1.2%	2.3%	3.1%	2.6%	5.3%	2.1%	-	2.8%	2.0%	2.6%	0.8%	1.8%	3.8%	1.6%	5.4%
		c															Mn
Fortify	19	6	0	7	6	12	3	4	0	16	2	1	4	3	2	2	8
	2.8%	4.5%	-	2.7%	4.6%	2.1%	7.9%	8.5%	-	3.2%	1.4%	2.6%	3.1%	1.8%	1.5%	1.6%	6.2%
		C		C	C		F	F									nop
Green Thumb	40	13	8	12	7	32	3	4	1	31	9	0	10	9	5	6	10
	5.9%	9.8%	5.0%	4.7%	5.4%	5.6%	7.9%	8.5%	3.7%	6.3%	6.1%	-	7.8%	5.5%	3.8%	4.8%	7.7%
		d															
Green-Up	19	7	2	4	6	15	3	1	0	16	3	0	3	3	4	2	7
	2.8%	5.3%	1.2%	1.6%	4.6%	2.6%	7.9%	2.1%	-	3.2%	2.0%	-	2.3%	1.8%	3.0%	1.6%	5.4%
		CD			cd		f										n
Greenview	22	6	2	7	7	13	3	6	0	19	3	0	3	4	2	5	8
	3.2%	4.5%	1.2%	2.7%	5.4%	2.3%	7.9%	12.8%	-	3.8%	2.0%	-	2.3%	2.4%	1.5%	4.0%	6.2%
		c			C		F	F									o

(Continued)

Table 3A-2: Lawn Fertilizers - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Hi-Yield	20	5	1	13	1	17	2	1	0	12	6	2	1	5	2	4	8
	2.9%	3.8%	0.6%	5.1%	0.8%	3.0%	5.3%	2.1%	-	2.4%	4.1%	5.3%	0.8%	3.0%	1.5%	3.2%	6.2%
		c		CE													Mo
Ironite	19	3	1	7	8	14	2	2	1	15	4	0	2	7	2	1	7
	2.8%	2.3%	0.6%	2.7%	6.2%	2.5%	5.3%	4.3%	3.7%	3.0%	2.7%	-	1.6%	4.2%	1.5%	0.8%	5.4%
					C									p			moP
Lesco	14	5	2	6	1	11	3	0	0	12	2	0	0	4	2	2	6
	2.1%	3.8%	1.2%	2.3%	0.8%	1.9%	7.9%	-	-	2.4%	1.4%	-	-	2.4%	1.5%	1.6%	4.6%
							Fh							m			M
Milorganite	22	7	4	8	3	17	4	1	0	19	3	0	2	6	3	2	9
	3.2%	5.3%	2.5%	3.1%	2.3%	3.0%	10.5%	2.1%	-	3.8%	2.0%	-	1.6%	3.6%	2.3%	1.6%	6.9%
							F										MoP
Natural Guard	20	5	2	7	6	15	2	3	0	17	3	0	3	4	6	1	6
	2.9%	3.8%	1.2%	2.7%	4.6%	2.6%	5.3%	6.4%	-	3.4%	2.0%	-	2.3%	2.4%	4.5%	0.8%	4.6%
					c										p		p
Pennington	25	7	2	13	3	19	3	2	1	19	6	0	4	7	3	3	8
	3.7%	5.3%	1.2%	5.1%	2.3%	3.3%	7.9%	4.3%	3.7%	3.8%	4.1%	-	3.1%	4.2%	2.3%	2.4%	6.2%
		C		C													
Sam's Choice	31	11	4	12	4	22	5	2	2	17	11	3	8	6	5	3	9
	4.6%	8.3%	2.5%	4.7%	3.1%	3.9%	13.2%	4.3%	7.4%	3.4%	7.5%	7.9%	6.2%	3.6%	3.8%	2.4%	6.9%
		Ce					F				J						p
Scott (Net)	441	91	109	161	80	389	20	14	18	321	93	27	69	109	93	92	78
	64.9%	68.4%	67.7%	62.9%	61.5%	68.5%	52.6%	29.8%	66.7%	64.8%	63.3%	71.1%	53.5%	66.1%	70.5%	74.2%	60.0%
						GH	H							M	Mq	MQ	
Scotts MLB	53	9	12	23	9	42	3	6	2	39	10	4	11	13	11	9	9
	7.8%	6.8%	7.5%	9.0%	6.9%	7.4%	7.9%	12.8%	7.4%	7.9%	6.8%	10.5%	8.5%	7.9%	8.3%	7.3%	6.9%
Scotts Turf Builder	410	85	100	150	75	364	19	10	17	300	86	24	64	103	85	86	72
	60.3%	63.9%	62.1%	58.6%	57.7%	64.1%	50.0%	21.3%	63.0%	60.6%	58.5%	63.2%	49.6%	62.4%	64.4%	69.4%	55.4%
						gH	H							M	M	MQ	

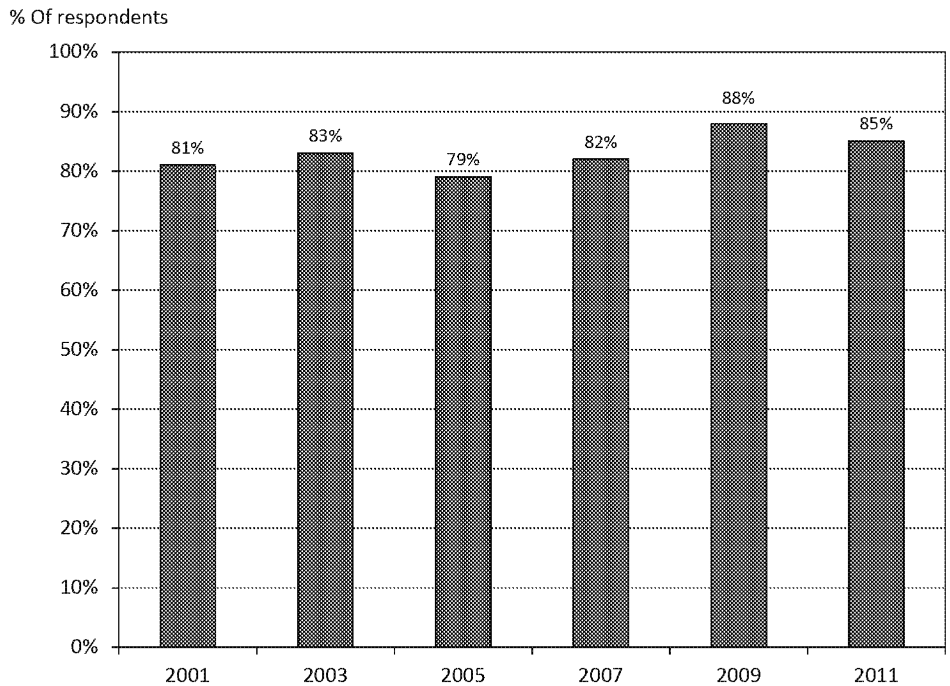
(Continued)

Table 3A-2: Lawn Fertilizers - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Sta Green	22	7	2	11	2	18	2	2	0	17	5	0	3	3	3	4	9
	3.2%	5.3%	1.2%	4.3%	1.5%	3.2%	5.3%	4.3%	-	3.4%	3.4%	-	2.3%	1.8%	2.3%	3.2%	6.9%
		Ce		c													mNo
Ultragreen (Lilly Miller)	12	1	2	5	4	10	1	1	0	9	3	0	1	1	3	3	4
	1.8%	0.8%	1.2%	2.0%	3.1%	1.8%	2.6%	2.1%	-	1.8%	2.0%	-	0.8%	0.6%	2.3%	2.4%	3.1%
Ultimate	8	2	1	4	1	6	2	0	0	7	1	0	1	2	1	2	2
	1.2%	1.5%	0.6%	1.6%	0.8%	1.1%	5.3%	-	-	1.4%	0.7%	-	0.8%	1.2%	0.8%	1.6%	1.5%
							F										
Vigoro	62	10	7	26	19	53	7	1	1	47	14	1	10	11	12	11	18
	9.1%	7.5%	4.3%	10.2%	14.6%	9.3%	18.4%	2.1%	3.7%	9.5%	9.5%	2.6%	7.8%	6.7%	9.1%	8.9%	13.8%
				C	bC	h	fH										N
Woodstream Ringer	3	2	0	1	0	3	0	0	0	2	1	0	0	1	1	1	0
	0.4%	1.5%	-	0.4%	-	0.5%	-	-	-	0.4%	0.7%	-	-	0.6%	0.8%	0.8%	-
Other	50	7	18	15	10	42	3	2	3	35	12	3	11	14	10	9	6
	7.4%	5.3%	11.2%	5.9%	7.7%	7.4%	7.9%	4.3%	11.1%	7.1%	8.2%	7.9%	8.5%	8.5%	7.6%	7.3%	4.6%
			bd														
Sigma	1035	243	192	394	206	842	92	70	31	775	216	44	171	231	196	177	260
	152.2%	182.7%	119.3%	153.9%	158.5%	148.2%	242.1%	148.9%	114.8%	156.6%	146.9%	115.8%	132.6%	140.0%	148.5%	142.7%	200.0%

Kline

Figure 3A-2: Percentage of Purchasers Who Recall the Last Brand of Lawn Fertilizer they Purchased, 2001 to 2011



PRODUCT FORM

Eighty percent of the analyzed respondents reported granulized lawn fertilizer as the most common product form purchased in 2011, down from 85% in 2009. Liquid concentrates rank second, accounting for 11% of the responses, the same as in 2009. Ready-to-Use liquids rank third, accounting for 10% of the responses. The distribution among the different regions of the country is consistent with national statistics.

Table 3A-3: Lawn Fertilizers - What Form was the Product? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	796	153	192	298	153	664	46*	56*	30*	578	170	48*	149	194	160	147	146
Don't know	30	6	7	12	5	23	6	1	0	22	7	1	10	5	4	6	5
	3.8%	3.9%	3.6%	4.0%	3.3%	3.5%	13.0%	1.8%	-	3.8%	4.1%	2.1%	6.7%	2.6%	2.5%	4.1%	3.4%
							FHI						no				
Total answering	766	147	185	286	148	641	40*	55*	30*	556	163	47*	139	189	156	141	141
Granules	610	114	150	229	117	535	27	27	21	443	131	36	93	149	131	119	118
	79.6%	77.6%	81.1%	80.1%	79.1%	83.5%	67.5%	49.1%	70.0%	79.7%	80.4%	76.6%	66.9%	78.8%	84.0%	84.4%	83.7%
						GHi	h		h					M	M	M	M
Liquid concentrate	102	30	19	36	17	68	13	17	4	71	25	6	23	22	17	15	25
	13.3%	20.4%	10.3%	12.6%	11.5%	10.6%	32.5%	30.9%	13.3%	12.8%	15.3%	12.8%	16.5%	11.6%	10.9%	10.6%	17.7%
		CDE					Fi	Fi									op
Ready to use (RTU) liquid with applicator	89	22	15	36	16	66	10	9	4	68	15	6	23	19	15	10	22
	11.6%	15.0%	8.1%	12.6%	10.8%	10.3%	25.0%	16.4%	13.3%	12.2%	9.2%	12.8%	16.5%	10.1%	9.6%	7.1%	15.6%
		C					F						noP				P
RTU liquid without applicator	25	8	3	7	7	16	4	5	0	23	2	0	3	4	4	4	10
	3.3%	5.4%	1.6%	2.4%	4.7%	2.5%	10.0%	9.1%	-	4.1%	1.2%	-	2.2%	2.1%	2.6%	2.8%	7.1%
		c					Fi	Fi		k							mNo
Water soluble powder	64	13	10	30	11	49	4	7	4	47	13	4	17	16	11	6	14
	8.4%	8.8%	5.4%	10.5%	7.4%	7.6%	10.0%	12.7%	13.3%	8.5%	8.0%	8.5%	12.2%	8.5%	7.1%	4.3%	9.9%
				c									P				p
Other	3	0	0	0	3	1	1	1	0	2	1	0	2	1	0	0	0
	0.4%	-	-	-	2.0%	0.2%	2.5%	1.8%	-	0.4%	0.6%	-	1.4%	0.5%	-	-	-
					bcD		F	F									
Sigma	893	187	197	338	171	735	59	66	33	654	187	52	161	211	178	154	189
	116.6%	127.2%	106.5%	118.2%	115.5%	114.7%	147.5%	120.0%	110.0%	117.6%	114.7%	110.6%	115.8%	111.6%	114.1%	109.2%	134.0%

RETAIL OUTLET

Approximately 43% of the respondents report that they purchased lawn fertilizer products at a home improvement center, down from 45% in 2009. Discount or mass-merchandise stores were listed by 35% of respondents, up from 32% in 2009. Lawn and garden centers saw no change from 2009 and stayed at 8% in 2010. Purchases made at home improvement centers across all regions ranged from 40% to 47%. Respondents at the higher income levels were less likely to purchase at discount or mass-merchandise stores and more likely to purchase at home improvement centers than those at the lower income levels. Urban respondents were more likely to purchase at home improvement centers and less likely to purchase at discount or mass-merchandise stores.

Table 3A-4: Lawn Fertilizers - Place Product Purchased Most Often? Base: Bought Within Last Year

	Total	Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburba n SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	796	153	192	298	153	664	46*	56*	30*	578	170	48*	149	194	160	147	146
Don't know	16	2	4	5	5	13	0	2	1	13	3	0	3	7	3	1	2
	2.0%	1.3%	2.1%	1.7%	3.3%	2.0%	-	3.6%	3.3%	2.2%	1.8%	-	2.0%	3.6%	1.9%	0.7%	1.4%
														p			
Total answering	780	151	188	293	148	651	46*	54*	29**	565	167	48*	146	187	157	146	144
Discount/mass merchandise store (e.g. Walmart, Kmart)	274	59	62	104	49	209	21	32	12	191	59	24	67	70	50	38	49
	35.1%	39.1%	33.0%	35.5%	33.1%	32.1%	45.7%	59.3%	41.4%	33.8%	35.3%	50.0%	45.9%	37.4%	31.8%	26.0%	34.0%
							f	F				Jk	OPQ	P			
Lawn and garden center/nursery	60	13	14	19	14	44	3	8	5	43	13	4	17	11	12	11	9
	7.7%	8.6%	7.4%	6.5%	9.5%	6.8%	6.5%	14.8%	17.2%	7.6%	7.8%	8.3%	11.6%	5.9%	7.6%	7.5%	6.3%
								F					n				
Supermarket/grocery store	11	1	1	4	5	10	1	0	0	10	1	0	0	5	2	2	2
	1.4%	0.7%	0.5%	1.4%	3.4%	1.5%	2.2%	-	-	1.8%	0.6%	-	-	2.7%	1.3%	1.4%	1.4%
					bc									M			
Home improvement center (e.g. Home Depot, Lowes)	338	63	76	139	60	300	15	11	12	259	67	12	44	74	76	74	70
	43.3%	41.7%	40.4%	47.4%	40.5%	46.1%	32.6%	20.4%	41.4%	45.8%	40.1%	25.0%	30.1%	39.6%	48.4%	50.7%	48.6%
						gH				L	l			m	M	MN	M
Hardware store (e.g. True Value)	34	4	11	10	9	30	3	1	0	23	7	4	6	11	7	6	4
	4.4%	2.6%	5.9%	3.4%	6.1%	4.6%	6.5%	1.9%	-	4.1%	4.2%	8.3%	4.1%	5.9%	4.5%	4.1%	2.8%
Farm supply store	30	3	16	10	1	29	1	0	0	17	10	3	5	11	5	6	3
	3.8%	2.0%	8.5%	3.4%	0.7%	4.5%	2.2%	-	-	3.0%	6.0%	6.3%	3.4%	5.9%	3.2%	4.1%	2.1%
			BDE	e							j			q			
Mail order/catalog	6	1	2	3	0	4	1	1	0	4	2	0	3	1	0	1	1
	0.8%	0.7%	1.1%	1.0%	-	0.6%	2.2%	1.9%	-	0.7%	1.2%	-	2.1%	0.5%	-	0.7%	0.7%
													o				
Warehouse/wholesale club	13	3	2	2	6	13	0	0	0	9	3	1	3	1	2	3	4
	1.7%	2.0%	1.1%	0.7%	4.1%	2.0%	-	-	-	1.6%	1.8%	2.1%	2.1%	0.5%	1.3%	2.1%	2.8%
					cD												n
Other	14	4	4	2	4	12	1	1	0	9	5	0	1	3	3	5	2
	1.8%	2.6%	2.1%	0.7%	2.7%	1.8%	2.2%	1.9%	-	1.6%	3.0%	-	0.7%	1.6%	1.9%	3.4%	1.4%
		d			d												
Sigma	780	151	188	293	148	651	46	54	29	565	167	48	146	187	157	146	144
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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PRODUCT TYPE

Purchases of straight lawn fertilizers account for 42% of the responses in 2011, up from 41% in 2009. Straight fertilizers showed fluctuations of about 5% over all regions of the country.

Fertilizers with a weed killer accounted for approximately 52% of the responses, with a regional range of 47% to 60%. Respondents that purchased lawn fertilizers across all income levels ranged from between 39.4% and 60.1% reporting purchasing them. Fourteen percent of respondents reported purchasing fertilizers that included an insecticide, and 10% reported purchasing a fertilizer and fungicide combination. Respondents who purchased lawn fertilizers with two or more pesticides totaled 8%.

PRODUCT USAGE

Combination fertilizer products are purchased mainly for the treatment of weeds, according to 72% of the responses. These combination products are primarily used to control dandelions and crabgrass. Respondents in the Northeast and Midwest cite dandelions as the weed that is treated the most. Respondents also indicated using combination products for clover and unidentified weeds. In general, combination products are used to treat two to three problems with a single application.

Table 3A-5: Lawn Fertilizers - Lawn Fertilizer Contained a Weed, Fungus, or Insect Killer? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	796	153	192	298	153	664	46*	56*	30*	578	170	48*	149	194	160	147	146
Total answering	796	153	192	298	153	664	46*	56*	30*	578	170	48*	149	194	160	147	146
Had a weed killer	416	91	103	140	82	349	25	28	14	311	88	17	71	103	72	86	84
	52.3%	59.5%	53.6%	47.0%	53.6%	52.6%	54.3%	50.0%	46.7%	53.8%	51.8%	35.4%	47.7%	53.1%	45.0%	58.5%	57.5%
		D								L	L					mO	mO
Had a fungus killer	79	24	11	27	17	54	13	10	2	64	10	5	18	11	15	13	22
	9.9%	15.7%	5.7%	9.1%	11.1%	8.1%	28.3%	17.9%	6.7%	11.1%	5.9%	10.4%	12.1%	5.7%	9.4%	8.8%	15.1%
		CD			c		FI	F		K			N				N
Had an insect killer	114	33	17	44	20	87	10	12	5	84	25	5	26	28	14	21	25
	14.3%	21.6%	8.9%	14.8%	13.1%	13.1%	21.7%	21.4%	16.7%	14.5%	14.7%	10.4%	17.4%	14.4%	8.8%	14.3%	17.1%
		Cde		c			f	f					O				O
Had two or more pesticides in it	64	13	16	26	9	48	7	4	5	49	11	4	21	11	11	4	17
	8.0%	8.5%	8.3%	8.7%	5.9%	7.2%	15.2%	7.1%	16.7%	8.5%	6.5%	8.3%	14.1%	5.7%	6.9%	2.7%	11.6%
							f		f				NOP		p		NP
Was a straight fertilizer	333	56	80	136	61	286	14	20	13	229	80	24	61	75	80	58	59
	41.8%	36.6%	41.7%	45.6%	39.9%	43.1%	30.4%	35.7%	43.3%	39.6%	47.1%	50.0%	40.9%	38.7%	50.0%	39.5%	40.4%
				b		g					j				Npq		
Sigma	1006	217	227	373	189	824	69	74	39	737	214	55	197	228	192	182	207
	126.4%	141.8%	118.2%	125.2%	123.5%	124.1%	150.0%	132.1%	130.0%	127.5%	125.9%	114.6%	132.2%	117.5%	120.0%	123.8%	141.8%

Table 3A-6: Lawn Fertilizers - Trying To Prevent or Get Rid of When You Used Fertilizer? Base: Bought Within Last Year																	
		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	796	153	192	298	153	664	46*	56*	30*	578	170	48*	149	194	160	147	146
Total answering	796	153	192	298	153	664	46*	56*	30*	578	170	48*	149	194	160	147	146
Insects (Net)	385	90	74	159	62	300	27	39	19	290	74	21	82	95	70	60	78
	48.4%	58.8%	38.5%	53.4%	40.5%	45.2%	58.7%	69.6%	63.3%	50.2%	43.5%	43.8%	55.0%	49.0%	43.8%	40.8%	53.4%
		CE		CE			f	F	f				OP				oP
Chinchbugs	86	15	16	46	9	69	6	6	5	64	19	3	18	16	18	15	19
	10.8%	9.8%	8.3%	15.4%	5.9%	10.4%	13.0%	10.7%	16.7%	11.1%	11.2%	6.3%	12.1%	8.2%	11.3%	10.2%	13.0%
				bCE													
Mole Cricket	79	18	14	40	7	56	5	12	6	57	20	2	15	17	16	10	21
	9.9%	11.8%	7.3%	13.4%	4.6%	8.4%	10.9%	21.4%	20.0%	9.9%	11.8%	4.2%	10.1%	8.8%	10.0%	6.8%	14.4%
		E		CE				F	F								P
Grubs	162	54	36	58	14	134	13	10	5	116	39	7	27	36	35	26	38
	20.4%	35.3%	18.8%	19.5%	9.2%	20.2%	28.3%	17.9%	16.7%	20.1%	22.9%	14.6%	18.1%	18.6%	21.9%	17.7%	26.0%
		CDE	E	E													np
Fire Ants	135	16	17	80	22	106	7	11	11	97	30	8	33	34	20	23	25
	17.0%	10.5%	8.9%	26.8%	14.4%	16.0%	15.2%	19.6%	36.7%	16.8%	17.6%	16.7%	22.1%	17.5%	12.5%	15.6%	17.1%
				BCE					FGh				O				
Japanese Beetles	64	16	17	24	7	46	6	6	6	38	19	7	15	20	14	9	6
	8.0%	10.5%	8.9%	8.1%	4.6%	6.9%	13.0%	10.7%	20.0%	6.6%	11.2%	14.6%	10.1%	10.3%	8.8%	6.1%	4.1%
		e							F		J	J	Q	Q			
Other Insects	101	15	20	40	26	80	3	12	6	73	21	7	27	30	20	15	9
	12.7%	9.8%	10.4%	13.4%	17.0%	12.0%	6.5%	21.4%	20.0%	12.6%	12.4%	14.6%	18.1%	15.5%	12.5%	10.2%	6.2%
					bc			FG	g				pQ	Q	q		
Weeds (Net)	571	119	143	206	103	486	30	34	21	417	120	34	106	139	112	113	101
	71.7%	77.8%	74.5%	69.1%	67.3%	73.2%	65.2%	60.7%	70.0%	72.1%	70.6%	70.8%	71.1%	71.6%	70.0%	76.9%	69.2%
		dE				H											
Crabgrass	406	81	112	144	69	357	17	18	14	307	74	25	66	98	82	90	70
	51.0%	52.9%	58.3%	48.3%	45.1%	53.8%	37.0%	32.1%	46.7%	53.1%	43.5%	52.1%	44.3%	50.5%	51.3%	61.2%	47.9%
			DE			GH				K						MnoQ	

(Continued)

Table 3A-6: Lawn Fertilizers - Trying To Prevent or Get Rid of When You Used Fertilizer? Base: Bought Within Last Year

	Total	Geographical region				Dwelling				Population density			Family income				
		Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Dandelions	405	85	119	121	80	344	24	22	15	291	90	24	74	98	84	74	75
	50.9%	55.6%	62.0%	40.6%	52.3%	51.8%	52.2%	39.3%	50.0%	50.3%	52.9%	50.0%	49.7%	50.5%	52.5%	50.3%	51.4%
		D	De		D	h											
Clover	207	33	66	71	37	175	12	13	7	157	42	8	32	37	44	47	47
	26.0%	21.6%	34.4%	23.8%	24.2%	26.4%	26.1%	23.2%	23.3%	27.2%	24.7%	16.7%	21.5%	19.1%	27.5%	32.0%	32.2%
			BDE												n	MN	MN
Other weeds	214	32	57	93	32	184	8	11	11	146	55	13	36	52	43	54	29
	26.9%	20.9%	29.7%	31.2%	20.9%	27.7%	17.4%	19.6%	36.7%	25.3%	32.4%	27.1%	24.2%	26.8%	26.9%	36.7%	19.9%
			be	BE					gh		j					MnoQ	
Diseases																	
Fungus	106	27	24	35	20	82	10	10	4	75	24	7	29	19	21	17	20
	13.3%	17.6%	12.5%	11.7%	13.1%	12.3%	21.7%	17.9%	13.3%	13.0%	14.1%	14.6%	19.5%	9.8%	13.1%	11.6%	13.7%
		d					f						Np				
Used straight fertilizer	201	32	46	81	42	170	9	12	10	141	46	14	38	51	47	32	33
	25.3%	20.9%	24.0%	27.2%	27.5%	25.6%	19.6%	21.4%	33.3%	24.4%	27.1%	29.2%	25.5%	26.3%	29.4%	21.8%	22.6%
Sigma	2166	424	544	833	365	1803	120	143	100	1562	479	125	410	508	444	412	392
	272.1%	277.1%	283.3%	279.5%	238.6%	271.5%	260.9%	255.4%	333.3%	270.2%	281.8%	260.4%	275.2%	261.9%	277.5%	280.3%	268.5%

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3B. GARDEN FERTILIZERS

OVERVIEW

Overall, 44% of the respondents report purchasing garden fertilizer in the past 12 months. This data represents a decrease from 45% in 2009, but an increase from 39% in 2007.

Table 3B-1. Garden Fertilizers - When Last Bought?

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburb an SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Base: Total Respondents	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
Total answering	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
One year ago or less (net)	683	139	165	251	128	555	39	62	27	500	140	43	144	161	125	133	120
	44.0%	45.7%	45.0%	45.7%	38.6%	47.3%	48.8%	28.8%	32.1%	44.0%	45.6%	39.4%	38.1%	39.1%	46.0%	53.8%	49.4%
		e	e	E		HI	HI								Mn	MNo	MN
Less than 6 months ago	315	59	72	114	70	259	15	29	12	242	59	14	59	74	57	65	60
	20.3%	19.4%	19.6%	20.8%	21.1%	22.1%	18.8%	13.5%	14.3%	21.3%	19.2%	12.8%	15.6%	18.0%	21.0%	26.3%	24.7%
						Hi				L					m	MN	MN
6 months to 1 year ago	368	80	93	137	58	296	24	33	15	258	81	29	85	87	68	68	60
	23.7%	26.3%	25.3%	25.0%	17.5%	25.2%	30.0%	15.3%	17.9%	22.7%	26.4%	26.6%	22.5%	21.1%	25.0%	27.5%	24.7%
		E	E	E		H	Hi									n	
More than 1 year ago	234	45	48	81	60	193	6	21	14	171	43	20	50	63	40	40	41
	15.1%	14.8%	13.1%	14.8%	18.1%	16.5%	7.5%	9.8%	16.7%	15.1%	14.0%	18.3%	13.2%	15.3%	14.7%	16.2%	16.9%
					c	GH			gh								
Do not use product	635	120	154	217	144	425	35	132	43	465	124	46	184	188	107	74	82
	40.9%	39.5%	42.0%	39.5%	43.4%	36.2%	43.8%	61.4%	51.2%	40.9%	40.4%	42.2%	48.7%	45.6%	39.3%	30.0%	33.7%
								FG	F				OPQ	PQ	P		
Sigma	1,552	304	367	549	332	1,173	80	215	84	1,136	307	109	378	412	272	247	243
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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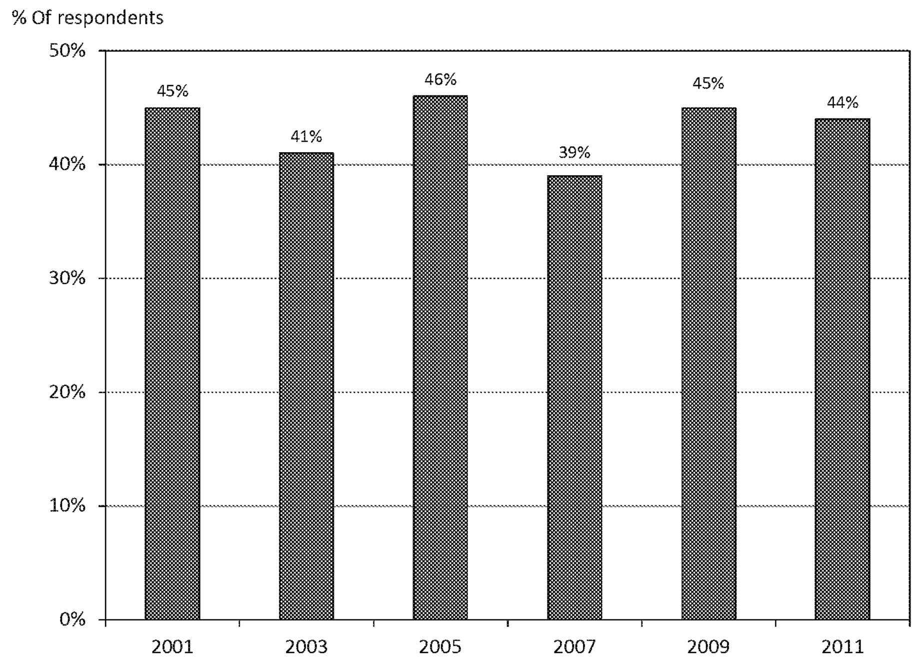
Figure 3B-1: Percentage of Respondents Who Purchased Garden Fertilizer During the Last 12 Months, 2001 to 2011



GEOGRAPHIC REGION

Respondents in the Northeast and South were slightly more likely to purchase garden fertilizers, with 46% for reporting their purchases in 2011, compared to respondents in the Midwest, and West with 45%, and 39%, respectively, reporting using them.

POPULATION DENSITY

In 2011, the use of garden fertilizers is higher in suburban areas, where 46% reported purchasing, and lower in urban and rural areas, where 44% and 39% of respondents, respectively, reported purchasing within the last 12 months. These percentages are lower than what was reported in 2009.

BRAND RECOLLECTION

Scotts Miracle-Gro is the garden fertilizer brand listed as the most frequently purchased in 2011, accounting for 53% of the responses, significantly lower than what was reported in 2009. There is relative consistency across all regions, population densities, and income levels for Miracle-Gro. The closest competitors to Miracle-Gro are Scotts with 22%, Bayer Advanced with 14%, and Vigoro with 8%. About 50% of respondents indicate purchasing more than one brand of garden fertilizer during the period.

Table 3B-2: Garden Fertilizers - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	683	139	165	251	128	555	39*	62*	27**	500	140	43*	144	161	125	133	120
Don't know	78	11	19	34	14	68	6	4	0	58	15	5	19	14	13	21	11
	11.4%	7.9%	11.5%	13.5%	10.9%	12.3%	15.4%	6.5%	-	11.6%	10.7%	11.6%	13.2%	8.7%	10.4%	15.8%	9.2%
				b												n	
Total answering	605	128	146	217	114	487	33*	58*	27**	442	125	38*	125	147	112	112	109
Bayer Advanced	85	19	12	30	24	68	7	6	4	66	17	2	12	10	15	23	25
	14.0%	14.8%	8.2%	13.8%	21.1%	14.0%	21.2%	10.3%	14.8%	14.9%	13.6%	5.3%	9.6%	6.8%	13.4%	20.5%	22.9%
		c			Cd										n	MN	MNo
Bonide	18	8	0	6	4	13	4	1	0	15	3	0	1	3	4	1	9
	3.0%	6.3%	-	2.8%	3.5%	2.7%	12.1%	1.7%	-	3.4%	2.4%	-	0.8%	2.0%	3.6%	0.9%	8.3%
		C		C	C		FH										MNP
Country Cottage	26	9	2	9	6	17	5	4	0	21	5	0	2	6	2	3	13
	4.3%	7.0%	1.4%	4.1%	5.3%	3.5%	15.2%	6.9%	-	4.8%	4.0%	-	1.6%	4.1%	1.8%	2.7%	11.9%
		C			c		F										MNOP
Dynamite	18	9	0	8	1	13	3	1	1	14	3	1	2	6	3	0	7
	3.0%	7.0%	-	3.7%	0.9%	2.7%	9.1%	1.7%	3.7%	3.2%	2.4%	2.6%	1.6%	4.1%	2.7%	-	6.4%
		CE		C			F							P	p		mP
Earth Juice	18	6	3	6	3	11	5	2	0	16	2	0	1	3	5	2	7
	3.0%	4.7%	2.1%	2.8%	2.6%	2.3%	15.2%	3.4%	-	3.6%	1.6%	-	0.8%	2.0%	4.5%	1.8%	6.4%
							FH								m		Mnp
Easy Weeder	15	8	1	4	2	10	4	1	0	12	2	1	1	4	4	2	4
	2.5%	6.3%	0.7%	1.8%	1.8%	2.1%	12.1%	1.7%	-	2.7%	1.6%	2.6%	0.8%	2.7%	3.6%	1.8%	3.7%
		CDe					FH										
Espoma	18	4	4	7	3	11	3	4	0	16	2	0	1	5	5	2	5
	3.0%	3.1%	2.7%	3.2%	2.6%	2.3%	9.1%	6.9%	-	3.6%	1.6%	-	0.8%	3.4%	4.5%	1.8%	4.6%
							F	F							m		m
Fertilome	17	3	3	8	3	14	0	2	1	15	2	0	1	4	3	1	8
	2.8%	2.3%	2.1%	3.7%	2.6%	2.9%	-	3.4%	3.7%	3.4%	1.6%	-	0.8%	2.7%	2.7%	0.9%	7.3%
																	MnP

(Continued)

Kline

Table 3B-2: Garden Fertilizers - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Fortify	11	5	0	4	2	9	0	2	0	9	1	1	1	5	2	0	3
	1.8%	3.9%	-	1.8%	1.8%	1.8%	-	3.4%	-	2.0%	0.8%	2.6%	0.8%	3.4%	1.8%	-	2.8%
		C												p			p
Green Light	16	4	3	5	4	15	1	0	0	14	1	1	3	4	4	1	4
	2.6%	3.1%	2.1%	2.3%	3.5%	3.1%	3.0%	-	-	3.2%	0.8%	2.6%	2.4%	2.7%	3.6%	0.9%	3.7%
Hi-Yield	19	6	4	7	2	12	3	4	0	14	5	0	2	7	3	0	7
	3.1%	4.7%	2.7%	3.2%	1.8%	2.5%	9.1%	6.9%	-	3.2%	4.0%	-	1.6%	4.8%	2.7%	-	6.4%
							F	f						P	p		mP
Hoffman	7	3	1	2	1	4	2	0	1	3	4	0	0	2	1	0	4
	1.2%	2.3%	0.7%	0.9%	0.9%	0.8%	6.1%	-	3.7%	0.7%	3.2%	-	-	1.4%	0.9%	-	3.7%
							Fh				J						MP
Ironite	14	5	0	3	6	11	2	0	1	9	5	0	1	2	4	2	5
	2.3%	3.9%	-	1.4%	5.3%	2.3%	6.1%	-	3.7%	2.0%	4.0%	-	0.8%	1.4%	3.6%	1.8%	4.6%
		C			CD		h										m
Jobe's (Net)	37	9	8	12	8	27	4	5	1	29	5	3	9	4	7	7	10
	6.1%	7.0%	5.5%	5.5%	7.0%	5.5%	12.1%	8.6%	3.7%	6.6%	4.0%	7.9%	7.2%	2.7%	6.3%	6.3%	9.2%
													n				N
Jobe's Organics	16	5	3	5	3	11	2	3	0	14	2	0	3	4	4	1	4
	2.6%	3.9%	2.1%	2.3%	2.6%	2.3%	6.1%	5.2%	-	3.2%	1.6%	-	2.4%	2.7%	3.6%	0.9%	3.7%
Jobe's Outdoor	25	6	5	8	6	19	2	3	1	18	4	3	6	1	4	6	8
	4.1%	4.7%	3.4%	3.7%	5.3%	3.9%	6.1%	5.2%	3.7%	4.1%	3.2%	7.9%	4.8%	0.7%	3.6%	5.4%	7.3%
													N		n	N	N
Lilly Miller	16	5	2	1	8	11	4	1	0	13	3	0	1	3	5	1	6
	2.6%	3.9%	1.4%	0.5%	7.0%	2.3%	12.1%	1.7%	-	2.9%	2.4%	-	0.8%	2.0%	4.5%	0.9%	5.5%
		D			CD		FH								m		Mp
Milorganite	11	4	2	4	1	8	1	2	0	10	1	0	1	4	1	3	2
	1.8%	3.1%	1.4%	1.8%	0.9%	1.6%	3.0%	3.4%	-	2.3%	0.8%	-	0.8%	2.7%	0.9%	2.7%	1.8%

(Continued)

Table 3B-2: Garden Fertilizers - Brand Last Purchased? Base: Bought Within Last Year

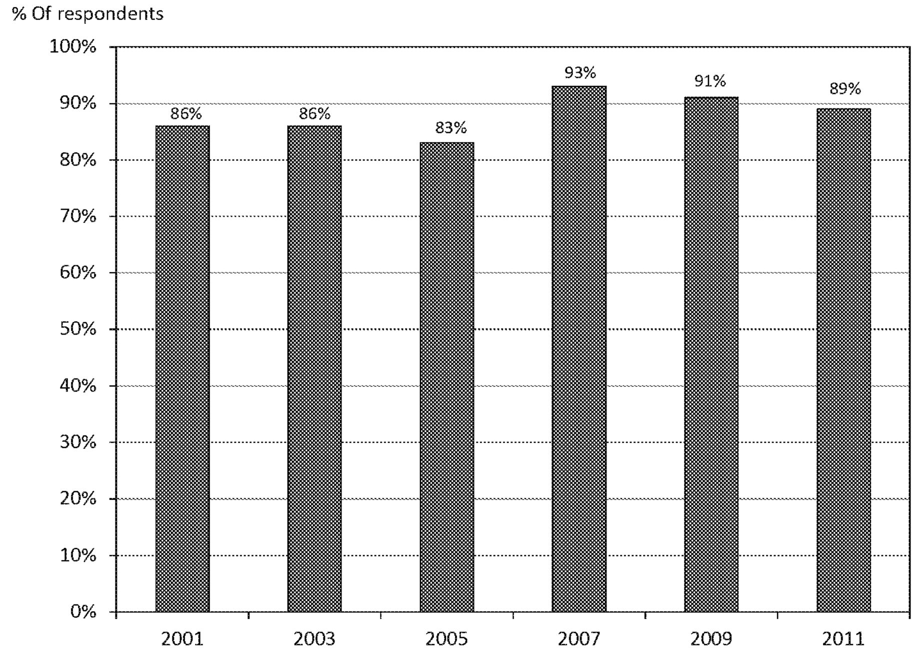
		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Miracle Gro	318	64	88	104	62	266	13	24	15	225	74	19	68	83	50	66	51
	52.6%	50.0%	60.3%	47.9%	54.4%	54.6%	39.4%	41.4%	55.6%	50.9%	59.2%	50.0%	54.4%	56.5%	44.6%	58.9%	46.8%
			bD			gh								o		Oq	
Natural Guard	17	5	1	8	3	11	3	3	0	15	2	0	4	4	3	0	6
	2.8%	3.9%	0.7%	3.7%	2.6%	2.3%	9.1%	5.2%	-	3.4%	1.6%	-	3.2%	2.7%	2.7%	-	5.5%
		c		c			F						p	p	p		P
Osmocote	27	8	5	11	3	23	0	2	2	22	4	1	4	7	2	5	9
	4.5%	6.3%	3.4%	5.1%	2.6%	4.7%	-	3.4%	7.4%	5.0%	3.2%	2.6%	3.2%	4.8%	1.8%	4.5%	8.3%
																	mO
Pennington	10	7	0	3	0	7	2	0	1	6	3	1	2	2	2	0	4
	1.7%	5.5%	-	1.4%	-	1.4%	6.1%	-	3.7%	1.4%	2.4%	2.6%	1.6%	1.4%	1.8%	-	3.7%
		CDE					Fh										P
Expert Gardener	8	4	0	3	1	6	1	1	0	5	3	0	2	0	2	0	4
	1.3%	3.1%	-	1.4%	0.9%	1.2%	3.0%	1.7%	-	1.1%	2.4%	-	1.6%	-	1.8%	-	3.7%
		C															NP
Scotts	134	32	25	53	24	115	6	7	6	96	26	12	25	23	36	25	25
	22.1%	25.0%	17.1%	24.4%	21.1%	23.6%	18.2%	12.1%	22.2%	21.7%	20.8%	31.6%	20.0%	15.6%	32.1%	22.3%	22.9%
				c		H									MN		
Shultz	10	1	7	2	0	9	1	0	0	6	3	1	2	2	4	1	1
	1.7%	0.8%	4.8%	0.9%	-	1.8%	3.0%	-	-	1.4%	2.4%	2.6%	1.6%	1.4%	3.6%	0.9%	0.9%
			bDE														
Sta Green	10	5	2	2	1	6	1	3	0	8	2	0	1	3	3	1	2
	1.7%	3.9%	1.4%	0.9%	0.9%	1.2%	3.0%	5.2%	-	1.8%	1.6%	-	0.8%	2.0%	2.7%	0.9%	1.8%
		d						F									
TerraCycle	7	4	1	1	1	4	1	2	0	6	1	0	2	0	3	1	1
	1.2%	3.1%	0.7%	0.5%	0.9%	0.8%	3.0%	3.4%	-	1.4%	0.8%	-	1.6%	-	2.7%	0.9%	0.9%
		D						f							N		
Vigoro	47	13	6	17	11	41	3	3	0	35	10	2	7	6	9	11	14
	7.8%	10.2%	4.1%	7.8%	9.6%	8.4%	9.1%	5.2%	-	7.9%	8.0%	5.3%	5.6%	4.1%	8.0%	9.8%	12.8%
		c			c											n	mN

(Continued)

Kline

Table 3B-2: Garden Fertilizers - Brand Last Purchased? Base: Bought Within Last Year																	
		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Whitney Farms	5	2	0	1	2	2	2	1	0	3	2	0	0	1	2	0	2
	0.8%	1.6%	-	0.5%	1.8%	0.4%	6.1%	1.7%	-	0.7%	1.6%	-	-	0.7%	1.8%	-	1.8%
							F										
Woodace	3	1	1	0	1	3	0	0	0	2	1	0	1	1	1	0	0
	0.5%	0.8%	0.7%	-	0.9%	0.6%	-	-	-	0.5%	0.8%	-	0.8%	0.7%	0.9%	-	-
Other	30	7	14	6	3	23	2	3	2	25	4	1	8	9	6	4	3
	5.0%	5.5%	9.6%	2.8%	2.6%	4.7%	6.1%	5.2%	7.4%	5.7%	3.2%	2.6%	6.4%	6.1%	5.4%	3.6%	2.8%
			DE														
Sigma	976	262	195	328	191	773	83	85	35	733	197	46	165	214	192	162	243
	161.3%	204.7%	133.6%	151.2%	167.5%	158.7%	251.5%	146.6%	129.6%	165.8%	157.6%	121.1%	132.0%	145.6%	171.4%	144.6%	222.9%

Figure 3B-2: Percentage of Purchasers Who Recall the Last Brand of Garden Fertilizer they Purchased, 2001 to 2011



PRODUCT FORM

Granular garden fertilizer remains the most frequently purchased form of fertilizer, accounting for 57% of the responses, a decrease from 61% in 2009. Liquid concentrate garden fertilizers account for 24% of the responses in 2011, UP from 23% in 2009. Granular garden fertilizers are the most popular among respondents in all regions. Water soluble products rank third, with 20% of the responses.

Table 3B-3: Garden Fertilizers - What Form Was The Product? Base: Bought Within Last Year		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	683	139	165	251	128	555	39*	62*	27**	500	140	43*	144	161	125	133	120
Don't know	23	5	5	8	5	16	5	2	0	17	4	2	11	2	1	5	4
	3.4%	3.6%	3.0%	3.2%	3.9%	2.9%	12.8%	3.2%	-	3.4%	2.9%	4.7%	7.6%	1.2%	0.8%	3.8%	3.3%
							Fh						NO				
Total answering	660	134	160	243	123	539	34*	60*	27**	483	136	41*	133	159	124	128	116
Granules	377	72	94	135	76	316	19	28	14	281	72	24	69	89	70	78	71
	57.1%	53.7%	58.8%	55.6%	61.8%	58.6%	55.9%	46.7%	51.9%	58.2%	52.9%	58.5%	51.9%	56.0%	56.5%	60.9%	61.2%
						h											
Liquid concentrate	161	41	34	63	23	129	9	15	8	119	34	8	27	37	33	23	41
	24.4%	30.6%	21.3%	25.9%	18.7%	23.9%	26.5%	25.0%	29.6%	24.6%	25.0%	19.5%	20.3%	23.3%	26.6%	18.0%	35.3%
		cE															MNP
Ready to use (RTU) liquid with applicator	91	21	15	38	17	67	7	13	4	65	22	4	18	18	18	13	24
	13.8%	15.7%	9.4%	15.6%	13.8%	12.4%	20.6%	21.7%	14.8%	13.5%	16.2%	9.8%	13.5%	11.3%	14.5%	10.2%	20.7%
				c				F									NP
RTU liquid without applicator	28	12	1	11	4	19	5	3	1	25	2	1	6	3	4	2	13
	4.2%	9.0%	0.6%	4.5%	3.3%	3.5%	14.7%	5.0%	3.7%	5.2%	1.5%	2.4%	4.5%	1.9%	3.2%	1.6%	11.2%
		Cde		C	c		F			k							MNOP
Water soluble powder	132	27	35	45	25	113	6	7	6	98	28	6	24	38	27	20	23
	20.0%	20.1%	21.9%	18.5%	20.3%	21.0%	17.6%	11.7%	22.2%	20.3%	20.6%	14.6%	18.0%	23.9%	21.8%	15.6%	19.8%
						h								p			
Spikes	63	14	12	25	12	44	6	9	4	53	7	3	16	10	12	14	11
	9.5%	10.4%	7.5%	10.3%	9.8%	8.2%	17.6%	15.0%	14.8%	11.0%	5.1%	7.3%	12.0%	6.3%	9.7%	10.9%	9.5%
							f	f		K			n				
Tablets	9	5	0	3	1	7	1	1	0	8	1	0	4	0	2	1	2
	1.4%	3.7%	-	1.2%	0.8%	1.3%	2.9%	1.7%	-	1.7%	0.7%	-	3.0%	-	1.6%	0.8%	1.7%
		C											N				n
Other	6	1	3	1	1	5	0	0	1	3	3	0	2	0	1	2	1
	0.9%	0.7%	1.9%	0.4%	0.8%	0.9%	-	-	3.7%	0.6%	2.2%	-	1.5%	-	0.8%	1.6%	0.9%
											j						
Sigma	867	193	194	321	159	700	53	76	38	652	169	46	166	195	167	153	186
	131.4%	144.0%	121.3%	132.1%	129.3%	129.9%	155.9%	126.7%	140.7%	135.0%	124.3%	112.2%	124.8%	122.6%	134.7%	119.5%	160.3%

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RETAIL OUTLET

Home improvement centers are the most popular among garden fertilizer purchasers, accounting for 40% of the responses, a slight decrease from 45% in 2009. The percentage of respondents purchasing from home improvement centers is slightly higher in urban areas, with 42%, while only 34% of suburban respondents report purchasing there. Discount and mass merchandise stores and lawn and garden centers rank second and third, with 29% and 18%, respectively. Home improvement centers increase in popularity as income levels increase.

PRODUCT USAGE

Garden fertilizer products are purchased for a number of applications around the home. Application to vegetables was listed by almost 63% of respondents, followed by potted plants with 50% and shrubs with 46% of responses. In general, garden fertilizer products are used to treat two to three problems.

Table 3B-4: Garden Fertilizers - Place Product Purchased Most Often? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	683	139	165	251	128	555	39*	62*	27**	500	140	43*	144	161	125	133	120
Don't know	23	5	6	9	3	17	2	3	1	19	4	0	7	8	3	4	1
	3.4%	3.6%	3.6%	3.6%	2.3%	3.1%	5.1%	4.8%	3.7%	3.8%	2.9%	-	4.9%	5.0%	2.4%	3.0%	0.8%
													q	q			
Total answering	660	134	159	242	125	538	37*	59*	26**	481	136	43*	137	153	122	129	119
Discount/mass merchandise store (e.g. Walmart, Kmart)	189	39	45	70	35	147	10	22	10	125	42	22	58	47	26	34	24
	28.6%	29.1%	28.3%	28.9%	28.0%	27.3%	27.0%	37.3%	38.5%	26.0%	30.9%	51.2%	42.3%	30.7%	21.3%	26.4%	20.2%
												JK	NOPQ	oq			
Lawn and garden center/nursery	117	30	27	37	23	89	9	18	1	92	20	5	25	20	19	16	37
	17.7%	22.4%	17.0%	15.3%	18.4%	16.5%	24.3%	30.5%	3.8%	19.1%	14.7%	11.6%	18.2%	13.1%	15.6%	12.4%	31.1%
		d						F									MNOP
Supermarket/grocery store	12	2	4	5	1	6	3	3	0	9	3	0	2	4	4	2	0
	1.8%	1.5%	2.5%	2.1%	0.8%	1.1%	8.1%	5.1%	-	1.9%	2.2%	-	1.5%	2.6%	3.3%	1.6%	-
							F	F						q	Q		
Home improvement center (e.g. Home Depot, Lowes)	261	51	56	105	49	226	14	11	10	203	46	12	37	53	55	63	53
	39.5%	38.1%	35.2%	43.4%	39.2%	42.0%	37.8%	18.6%	38.5%	42.2%	33.8%	27.9%	27.0%	34.6%	45.1%	48.8%	44.5%
						H	H			kl					Mn	MN	Mn
Hardware store (e.g. True Value)	25	3	11	4	7	22	0	2	1	17	7	1	5	9	6	5	0
	3.8%	2.2%	6.9%	1.7%	5.6%	4.1%	-	3.4%	3.8%	3.5%	5.1%	2.3%	3.6%	5.9%	4.9%	3.9%	-
			bD		D								Q	Q	Q	Q	
Farm supply store	33	4	12	14	3	30	1	1	1	17	13	3	5	14	6	5	3
	5.0%	3.0%	7.5%	5.8%	2.4%	5.6%	2.7%	1.7%	3.8%	3.5%	9.6%	7.0%	3.6%	9.2%	4.9%	3.9%	2.5%
			be								J			mpQ			
Mail order/catalog	5	1	1	2	1	3	0	1	1	3	2	0	1	3	0	1	0
	0.8%	0.7%	0.6%	0.8%	0.8%	0.6%	-	1.7%	3.8%	0.6%	1.5%	-	0.7%	2.0%	-	0.8%	-
Warehouse/wholesale club	7	3	0	1	3	6	0	1	0	6	1	0	1	2	2	0	2
	1.1%	2.2%	-	0.4%	2.4%	1.1%	-	1.7%	-	1.2%	0.7%	-	0.7%	1.3%	1.6%	-	1.7%
		cd			cd												
Other	11	1	3	4	3	9	0	0	2	9	2	0	3	1	4	3	0
	1.7%	0.7%	1.9%	1.7%	2.4%	1.7%	-	-	7.7%	1.9%	1.5%	-	2.2%	0.7%	3.3%	2.3%	-
															Q	q	
Sigma	660	134	159	242	125	538	37	59	26	481	136	43	137	153	122	129	119
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 3B-5. Garden Fertilizers - Plants Using Garden Fertilizers On Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	683	139	165	251	128	555	39*	62*	27**	500	140	43*	144	161	125	133	120
Total answering	683	139	165	251	128	555	39*	62*	27**	500	140	43*	144	161	125	133	120
Vegetable	427	88	117	151	71	347	25	37	18	297	96	34	95	101	79	77	75
	62.5%	63.3%	70.9%	60.2%	55.5%	62.5%	64.1%	59.7%	66.7%	59.4%	68.6%	79.1%	66.0%	62.7%	63.2%	57.9%	62.5%
			DE								J	J					
Shrub	313	70	60	121	62	262	20	23	8	249	51	13	47	64	57	68	77
	45.8%	50.4%	36.4%	48.2%	48.4%	47.2%	51.3%	37.1%	29.6%	49.8%	36.4%	30.2%	32.6%	39.8%	45.6%	51.1%	64.2%
		C		C	C					KL					M	Mn	MNOP
Tree	182	37	29	68	48	152	11	14	5	145	31	6	30	41	36	34	41
	26.6%	26.6%	17.6%	27.1%	37.5%	27.4%	28.2%	22.6%	18.5%	29.0%	22.1%	14.0%	20.8%	25.5%	28.8%	25.6%	34.2%
		c		C	bCD					L							M
Potted plants	340	64	71	133	72	275	17	33	15	246	75	19	75	75	65	65	60
	49.8%	46.0%	43.0%	53.0%	56.3%	49.5%	43.6%	53.2%	55.6%	49.2%	53.6%	44.2%	52.1%	46.6%	52.0%	48.9%	50.0%
				C	bC												
Other	47	11	15	14	7	36	5	3	3	37	9	1	9	13	7	12	6
	6.9%	7.9%	9.1%	5.6%	5.5%	6.5%	12.8%	4.8%	11.1%	7.4%	6.4%	2.3%	6.3%	8.1%	5.6%	9.0%	5.0%
Sigma	1309	270	292	487	260	1072	78	110	49	974	262	73	256	294	244	256	259
	191.7%	194.2%	177.0%	194.0%	203.1%	193.2%	200.0%	177.4%	181.5%	194.8%	187.1%	169.8%	177.8%	182.6%	195.2%	192.5%	215.8%

3C. HOUSEPLANT FERTILIZERS

OVERVIEW

Forty percent of the respondents report purchasing houseplant fertilizers in the past 12 months, a decrease from 41% in 2009 and higher than the 35% reporting purchasing them in 2007.

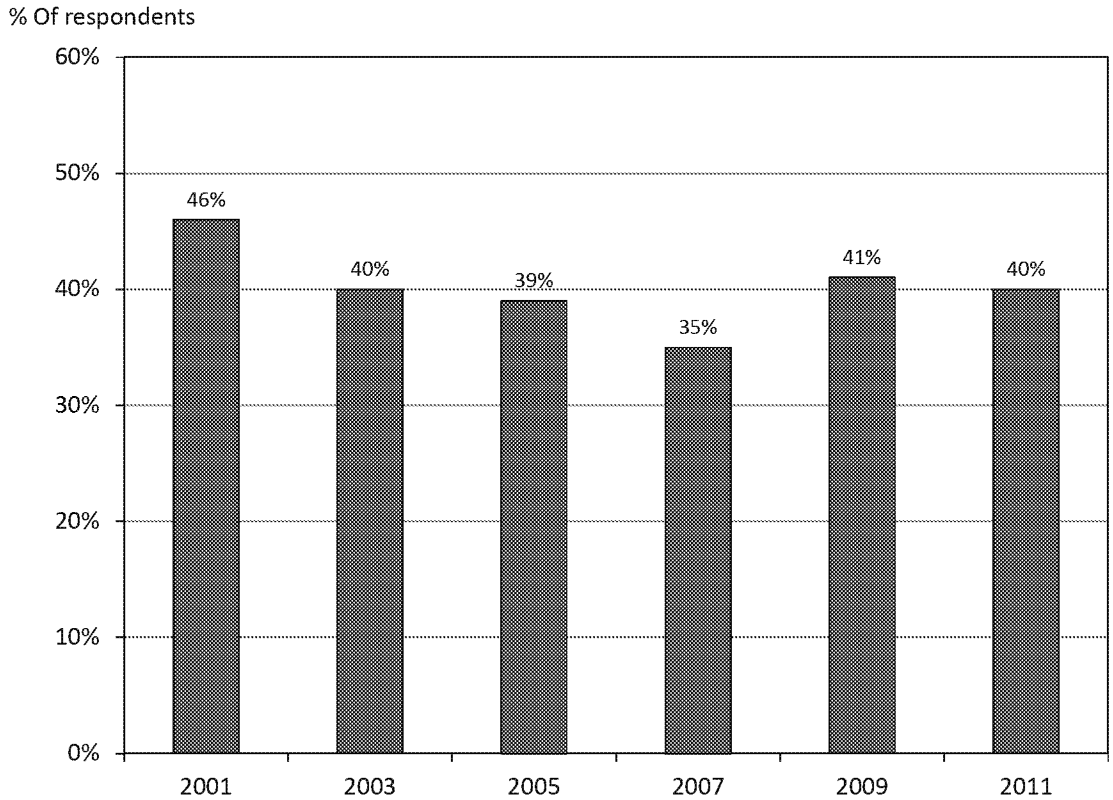
Table 3C-1: Houseplant Fertilizers - When Last Bought?

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Base: Total Respondents	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
Total answering	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
One year ago or less (net)	619	125	143	232	119	469	39	84	27	441	135	43	141	151	114	102	111
	39.9%	41.1%	39.0%	42.3%	35.8%	40.0%	48.8%	39.1%	32.1%	38.8%	44.0%	39.4%	37.3%	36.7%	41.9%	41.3%	45.7%
				e			I										MN
Less than 6 months ago	310	68	74	109	59	244	18	37	11	217	77	16	64	81	57	56	52
	20.0%	22.4%	20.2%	19.9%	17.8%	20.8%	22.5%	17.2%	13.1%	19.1%	25.1%	14.7%	16.9%	19.7%	21.0%	22.7%	21.4%
						i					JL					m	
6 months to 1 year ago	309	57	69	123	60	225	21	47	16	224	58	27	77	70	57	46	59
	19.9%	18.8%	18.8%	22.4%	18.1%	19.2%	26.3%	21.9%	19.0%	19.7%	18.9%	24.8%	20.4%	17.0%	21.0%	18.6%	24.3%
																	N
More than 1 year ago	289	57	69	91	72	226	15	29	19	211	54	24	69	76	53	43	48
	18.6%	18.8%	18.8%	16.6%	21.7%	19.3%	18.8%	13.5%	22.6%	18.6%	17.6%	22.0%	18.3%	18.4%	19.5%	17.4%	19.8%
					d	H			h								
Do not use product	644	122	155	226	141	478	26	102	38	484	118	42	168	185	105	102	84
	41.5%	40.1%	42.2%	41.2%	42.5%	40.8%	32.5%	47.4%	45.2%	42.6%	38.4%	38.5%	44.4%	44.9%	38.6%	41.3%	34.6%
								fG	g				Q	Q			
Sigma	1,552	304	367	549	332	1,173	80	215	84	1,136	307	109	378	412	272	247	243
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base

Kline

Figure 3C-1: Percentage of Respondents Who Purchased Houseplant Fertilizer During the Past 12 Months, 2001 to 2011



GEOGRAPHIC REGION

Purchases of houseplant fertilizers are not significantly affected by region or income level. Overall, 42% of the analyzed respondents report that they do not use houseplant fertilizers, up from 41% in 2009.

FAMILY INCOME

Use of houseplant fertilizers is fairly consistent across all income levels, with a range of between 37% and 46% reporting the purchase of houseplant fertilizers.

BRAND RECOLLECTION

Miracle-Gro remains the most frequently purchased houseplant fertilizer brand in 2011, accounting for 74% of the responses, down from 81% in 2009. Jobe's houseplant fertilizer follows, accounting for approximately 10%. Schultz ranks third, with 6%. The purchasing of Miracle-Gro was consistent across regions, population densities, and income levels.

Table 3C-2: Houseplant Fertilizers - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	619	125	143	232	119	469	39*	84*	27**	441	135	43*	141	151	114	102	111
Don't know	43	8	9	18	8	27	2	7	7	32	6	5	9	6	11	10	7
	6.9%	6.4%	6.3%	7.8%	6.7%	5.8%	5.1%	8.3%	25.9%	7.3%	4.4%	11.6%	6.4%	4.0%	9.6%	9.8%	6.3%
												k			n	n	
Total answering	576	117	134	214	111	442	37*	77*	20**	409	129	38*	132	145	103	92*	104
Bonide	21	7	5	5	4	16	3	2	0	17	4	0	4	4	4	1	8
	3.6%	6.0%	3.7%	2.3%	3.6%	3.6%	8.1%	2.6%	-	4.2%	3.1%	-	3.0%	2.8%	3.9%	1.1%	7.7%
		d															nP
Dynamite	28	8	1	13	6	16	6	6	0	24	4	0	2	8	4	4	10
	4.9%	6.8%	0.7%	6.1%	5.4%	3.6%	16.2%	7.8%	-	5.9%	3.1%	-	1.5%	5.5%	3.9%	4.3%	9.6%
		C		C	C		F	f						m			M
Earth Juice	30	10	4	11	5	20	2	8	0	25	5	0	4	5	4	3	14
	5.2%	8.5%	3.0%	5.1%	4.5%	4.5%	5.4%	10.4%	-	6.1%	3.9%	-	3.0%	3.4%	3.9%	3.3%	13.5%
		c						F									MNOP
Green Light	32	8	5	9	10	19	9	4	0	28	4	0	4	8	4	5	11
	5.6%	6.8%	3.7%	4.2%	9.0%	4.3%	24.3%	5.2%	-	6.8%	3.1%	-	3.0%	5.5%	3.9%	5.4%	10.6%
					cd		FH			I							Mo
Hoffman	16	3	4	4	5	9	2	4	1	11	5	0	2	4	2	4	4
	2.8%	2.6%	3.0%	1.9%	4.5%	2.0%	5.4%	5.2%	5.0%	2.7%	3.9%	-	1.5%	2.8%	1.9%	4.3%	3.8%
Jobe's	56	12	14	18	12	43	2	9	2	41	11	4	13	13	13	7	10
	9.7%	10.3%	10.4%	8.4%	10.8%	9.7%	5.4%	11.7%	10.0%	10.0%	8.5%	10.5%	9.8%	9.0%	12.6%	7.6%	9.6%
K Gro	24	6	6	8	4	17	3	2	2	19	4	1	5	3	7	1	8
	4.2%	5.1%	4.5%	3.7%	3.6%	3.8%	8.1%	2.6%	10.0%	4.6%	3.1%	2.6%	3.8%	2.1%	6.8%	1.1%	7.7%
															nP		NP
Miracle Gro	426	90	98	161	77	334	25	52	15	293	101	32	100	108	77	70	71
	74.0%	76.9%	73.1%	75.2%	69.4%	75.6%	67.6%	67.5%	75.0%	71.6%	78.3%	84.2%	75.8%	74.5%	74.8%	76.1%	68.3%
												j					

(Continued)

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Table 3C-2: Houseplant Fertilizers - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Osmocote	25	8	3	6	8	21	2	2	0	20	5	0	5	4	6	3	7
	4.3%	6.8%	2.2%	2.8%	7.2%	4.8%	5.4%	2.6%	-	4.9%	3.9%	-	3.8%	2.8%	5.8%	3.3%	6.7%
		cd			cd												
Safer	10	2	4	3	1	6	1	3	0	9	1	0	2	3	4	0	1
	1.7%	1.7%	3.0%	1.4%	0.9%	1.4%	2.7%	3.9%	-	2.2%	0.8%	-	1.5%	2.1%	3.9%	-	1.0%
															p		
Schultz	36	6	11	12	7	32	2	2	0	26	10	0	9	8	11	3	5
	6.3%	5.1%	8.2%	5.6%	6.3%	7.2%	5.4%	2.6%	-	6.4%	7.8%	-	6.8%	5.5%	10.7%	3.3%	4.8%
											l				P		
Vigoro	30	8	4	14	4	28	1	1	0	20	8	2	8	6	8	4	4
	5.2%	6.8%	3.0%	6.5%	3.6%	6.3%	2.7%	1.3%	-	4.9%	6.2%	5.3%	6.1%	4.1%	7.8%	4.3%	3.8%
						h											
Other	14	3	4	5	2	9	2	0	3	11	2	1	3	6	2	1	2
	2.4%	2.6%	3.0%	2.3%	1.8%	2.0%	5.4%	-	15.0%	2.7%	1.6%	2.6%	2.3%	4.1%	1.9%	1.1%	1.9%
							H										
Sigma	748	171	163	269	145	570	60	95	23	544	164	40	161	180	146	106	155
	129.9%	146.2%	121.6%	125.7%	130.6%	129.0%	162.2%	123.4%	115.0%	133.0%	127.1%	105.3%	122.0%	124.1%	141.7%	115.2%	149.0%

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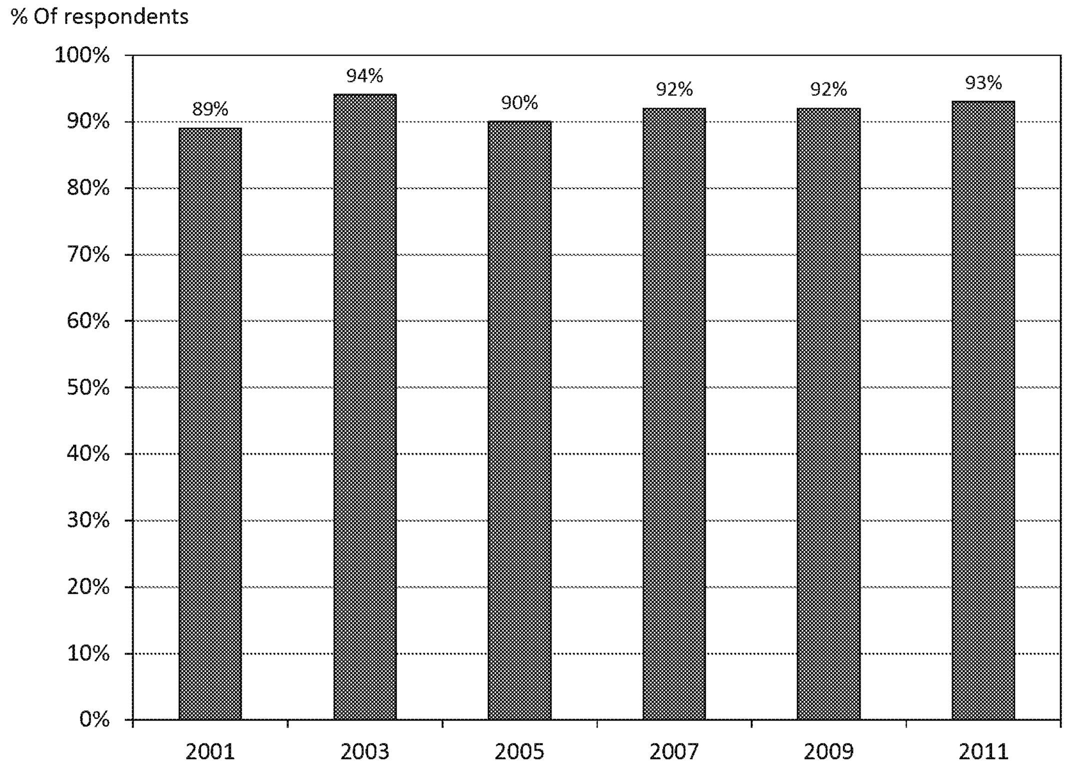
Figure 3C-2: Percentage of Purchasers Who Recall the Last Brand of Houseplant Fertilizer they Purchased, 2001 to 2011



PRODUCT FORM

Granule houseplant fertilizers account for 35% of the responses, up from 34% in 2009. Liquid concentrates, spikes, and water soluble powders all rank high with respondents with 30%, 22%, and 21% of responses, respectively. Granule product forms are preferred about evenly across all regions apart from the West where they are used less than elsewhere. Liquid concentrates are favored more by respondents in the Northeast and West, and least in the Midwest where they prefer spike products.

Table 3C-3: Houseplant Fertilizers - What Form was the Product? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	619	125	143	232	119	469	39*	84*	27**	441	135	43*	141	151	114	102	111
Don't know	25	5	5	11	4	15	2	5	3	19	4	2	8	5	4	3	5
	4.0%	4.0%	3.5%	4.7%	3.4%	3.2%	5.1%	6.0%	11.1%	4.3%	3.0%	4.7%	5.7%	3.3%	3.5%	2.9%	4.5%
Total answering	594	120	138	221	115	454	37*	79*	24**	422	131	41*	133	146	110	99*	106
Granules	207	44	51	82	30	160	13	25	9	147	47	13	45	46	36	35	45
	34.8%	36.7%	37.0%	37.1%	26.1%	35.2%	35.1%	31.6%	37.5%	34.8%	35.9%	31.7%	33.8%	31.5%	32.7%	35.4%	42.5%
		e	e	E													n
Spikes	131	29	34	41	27	90	9	28	4	90	29	12	34	37	21	18	21
	22.1%	24.2%	24.6%	18.6%	23.5%	19.8%	24.3%	35.4%	16.7%	21.3%	22.1%	29.3%	25.6%	25.3%	19.1%	18.2%	19.8%
								F									
Tablets	42	13	6	15	8	22	10	8	2	33	6	3	12	9	6	5	10
	7.1%	10.8%	4.3%	6.8%	7.0%	4.8%	27.0%	10.1%	8.3%	7.8%	4.6%	7.3%	9.0%	6.2%	5.5%	5.1%	9.4%
		C					FH	f									
Liquid concentrate	179	42	35	61	41	142	9	19	9	127	43	9	37	43	38	33	28
	30.1%	35.0%	25.4%	27.6%	35.7%	31.3%	24.3%	24.1%	37.5%	30.1%	32.8%	22.0%	27.8%	29.5%	34.5%	33.3%	26.4%
		c			c												
Ready to use (RTU) liquid with applicator	59	15	14	20	10	42	3	13	1	42	14	3	13	13	16	6	11
	9.9%	12.5%	10.1%	9.0%	8.7%	9.3%	8.1%	16.5%	4.2%	10.0%	10.7%	7.3%	9.8%	8.9%	14.5%	6.1%	10.4%
								f							P		
RTU liquid without applicator	10	4	1	4	1	7	1	2	0	8	1	1	1	2	2	2	3
	1.7%	3.3%	0.7%	1.8%	0.9%	1.5%	2.7%	2.5%	-	1.9%	0.8%	2.4%	0.8%	1.4%	1.8%	2.0%	2.8%
Water soluble powder	126	23	28	56	19	102	5	15	4	92	23	11	23	31	25	14	33
	21.2%	19.2%	20.3%	25.3%	16.5%	22.5%	13.5%	19.0%	16.7%	21.8%	17.6%	26.8%	17.3%	21.2%	22.7%	14.1%	31.1%
				e													MnP
Other	4	0	0	4	0	2	1	0	1	4	0	0	1	2	0	0	1
	0.7%	-	-	1.8%	-	0.4%	2.7%	-	4.2%	0.9%	-	-	0.8%	1.4%	-	-	0.9%
							f										
Sigma	758	170	169	283	136	567	51	110	30	543	163	52	166	183	144	113	152
	127.6%	141.7%	122.5%	128.1%	118.3%	124.9%	137.8%	139.2%	125.0%	128.7%	124.4%	126.8%	124.8%	125.3%	130.9%	114.1%	143.4%

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RETAIL OUTLET

Discount or mass-merchandise stores are reported as the primary retail outlet, accounting for 44% of the responses in 2011, more than the 43% who purchased there in 2009. Home improvement centers rank second with 32%, a decrease from 35% in 2009. Lawn and garden centers rank third with 11%, up slightly from 8% in 2009.

Income level affects where houseplant fertilizers are purchased, as those in the lower income levels tend to purchase at discount or mass-merchandise outlets, and the higher income levels are more likely to purchase at home improvement centers. Respondents in rural, urban, and suburban areas are all more likely to purchase their houseplant fertilizers at discount or mass-merchandise outlets.

Table 3C-4. Houseplant Fertilizers - Place Product Purchased Most Often? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	619	125	143	232	119	469	39*	84*	27**	441	135	43*	141	151	114	102	111
Don't know	26	3	7	11	5	20	1	3	2	17	7	2	9	6	3	3	5
	4.2%	2.4%	4.9%	4.7%	4.2%	4.3%	2.6%	3.6%	7.4%	3.9%	5.2%	4.7%	6.4%	4.0%	2.6%	2.9%	4.5%
Total answering	593	122	136	221	114	449	38*	81*	25**	424	128	41*	132	145	111	99*	106
Discount/mass merchandise store (e.g. Walmart, Kmart)	258	41	65	101	51	193	13	38	14	164	65	29	64	81	42	39	32
	43.5%	33.6%	47.8%	45.7%	44.7%	43.0%	34.2%	46.9%	56.0%	38.7%	50.8%	70.7%	48.5%	55.9%	37.8%	39.4%	30.2%
			B	B	b						J	JK	oQ	OPQ			
Lawn and garden center/nursery	62	18	15	19	10	45	5	10	2	53	8	1	14	10	10	13	15
	10.5%	14.8%	11.0%	8.6%	8.8%	10.0%	13.2%	12.3%	8.0%	12.5%	6.3%	2.4%	10.6%	6.9%	9.0%	13.1%	14.2%
		d								Kl							n
Supermarket/grocery store	27	8	4	7	8	14	4	9	0	23	4	0	8	3	5	2	9
	4.6%	6.6%	2.9%	3.2%	7.0%	3.1%	10.5%	11.1%	-	5.4%	3.1%	-	6.1%	2.1%	4.5%	2.0%	8.5%
							F	F					n				NP
Home improvement center (e.g. Home Depot, Lowes)	188	40	43	71	34	150	11	20	7	142	37	9	31	34	42	38	43
	31.7%	32.8%	31.6%	32.1%	29.8%	33.4%	28.9%	24.7%	28.0%	33.5%	28.9%	22.0%	23.5%	23.4%	37.8%	38.4%	40.6%
															MN	MN	MN
Hardware store (e.g. True Value)	17	4	2	8	3	13	1	2	1	11	6	0	4	8	2	2	1
	2.9%	3.3%	1.5%	3.6%	2.6%	2.9%	2.6%	2.5%	4.0%	2.6%	4.7%	-	3.0%	5.5%	1.8%	2.0%	0.9%
														q			
Farm supply store	12	3	2	7	0	11	1	0	0	10	1	1	4	4	1	2	1
	2.0%	2.5%	1.5%	3.2%	-	2.4%	2.6%	-	-	2.4%	0.8%	2.4%	3.0%	2.8%	0.9%	2.0%	0.9%
		e		e													
Mail order/catalog	6	2	0	2	2	5	0	1	0	5	1	0	2	0	2	2	0
	1.0%	1.6%	-	0.9%	1.8%	1.1%	-	1.2%	-	1.2%	0.8%	-	1.5%	-	1.8%	2.0%	-
																n	
Warehouse/wholesale club	14	6	2	3	3	12	2	0	0	10	4	0	3	4	2	1	4
	2.4%	4.9%	1.5%	1.4%	2.6%	2.7%	5.3%	-	-	2.4%	3.1%	-	2.3%	2.8%	1.8%	1.0%	3.8%
		D					H										
Other	9	0	3	3	3	6	1	1	1	6	2	1	2	1	5	0	1
	1.5%	-	2.2%	1.4%	2.6%	1.3%	2.6%	1.2%	4.0%	1.4%	1.6%	2.4%	1.5%	0.7%	4.5%	-	0.9%
					b										NP		
Sigma	593	122	136	221	114	449	38	81	25	424	128	41	132	145	111	99	106
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Kline

Houseplant Fertilizers

4A. LAWN HERBICIDES

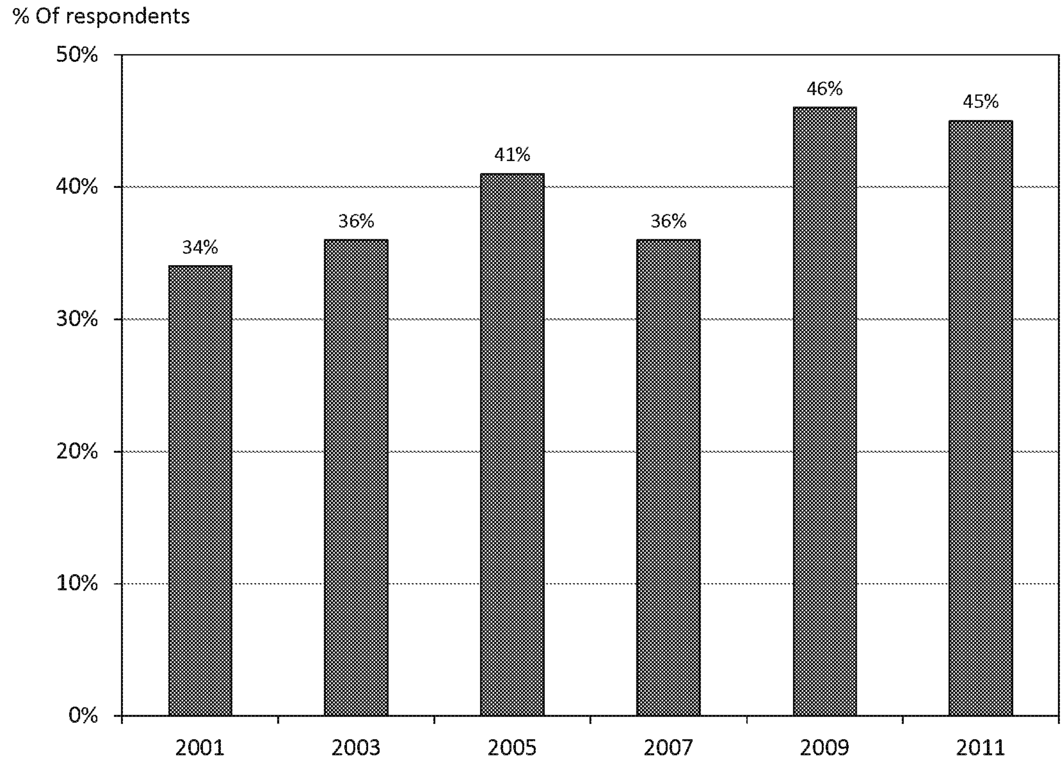
OVERVIEW

Overall, 45% of the respondents report purchasing lawn herbicides within the past 12 months, a decrease from 46% in 2009. Thirty-seven percent of respondents indicate that they did not use lawn herbicides in 2011, an increase from 34% in 2009.

Table 4A-1: Lawn Herbicides (Weed Killer) - When Last Bought?

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Base: Total Respondents	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
Total answering	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
One year ago or less (net)	702	133	175	267	127	593	33	45	31	502	161	39	130	175	143	126	128
	45.2%	43.8%	47.7%	48.6%	38.3%	50.6%	41.3%	20.9%	36.9%	44.2%	52.4%	35.8%	34.4%	42.5%	52.6%	51.0%	52.7%
			E	E		HI	H		H	I	JL			M	MN	MN	MN
Less than 6 months ago	295	52	84	110	49	252	12	19	12	211	68	16	52	80	55	58	50
	19.0%	17.1%	22.9%	20.0%	14.8%	21.5%	15.0%	8.8%	14.3%	18.6%	22.1%	14.7%	13.8%	19.4%	20.2%	23.5%	20.6%
			bE	E		H					I			M	M	M	M
6 months to 1 year ago	407	81	91	157	78	341	21	26	19	291	93	23	78	95	88	68	78
	26.2%	26.6%	24.8%	28.6%	23.5%	29.1%	26.3%	12.1%	22.6%	25.6%	30.3%	21.1%	20.6%	23.1%	32.4%	27.5%	32.1%
				e		H	H		H		I				MN	M	MN
More than 1 year ago	277	50	64	103	60	223	11	29	14	209	43	25	76	69	48	42	42
	17.8%	16.4%	17.4%	18.8%	18.1%	19.0%	13.8%	13.5%	16.7%	18.4%	14.0%	22.9%	20.1%	16.7%	17.6%	17.0%	17.3%
						h				k		K					
Do not use product	573	121	128	179	145	357	36	141	39	425	103	45	172	168	81	79	73
	36.9%	39.8%	34.9%	32.6%	43.7%	30.4%	45.0%	65.6%	46.4%	37.4%	33.6%	41.3%	45.5%	40.8%	29.8%	32.0%	30.0%
		D			CD		F	FGI	F				OPQ	OPQ			
Sigma	1,552	304	367	549	332	1,173	80	215	84	1,136	307	109	378	412	272	247	243
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Figure 4A-1: Percentage of Respondents Who Purchased Lawn Herbicides During the Last 12 Months, 2001 to 2011



GEOGRAPHIC REGION

Lawn herbicide usage varies to some degree across the country, with the respondents in the South reporting the highest incidence of usage at 49%, and the West citing the lowest usage at 38%, but all regions are in a pretty close range.

POPULATION DENSITY

The propensity to use lawn herbicides is slightly higher in suburban areas, where 52% report using them, as compared with 44% and 36%, respectively, among urban and rural respondents.

FAMILY INCOME

Although respondents at all income levels purchase lawn herbicides, the incidence of purchase is highest in the over $100,000 and between $50,000 and $75,000 income range, with 53% reporting purchasing, and the lowest in the under $25,000 income level with only 34%.

BRAND RECOLLECTION

Thirty-four percent of the respondents report purchasing Ortho Weed-B-Gon Max Plus Crabgrass lawn herbicide in 2011, with an additional 3% saying they purchased other Ortho Weed-B-Gon lawn herbicide, for a total of 36% purchasing an Ortho Weed-B-Gon lawn herbicide in 2011. There were some respondents that used both of the previously mentioned Ortho products. Ortho Weed-B-Gon was most often cited by respondents in the Midwest. Scotts Touch Up Weed Control and Bayer Advanced Weed Killer follow both with 15% overall. Scotts Halts Crabgrass is fifth with usage of 13%. Spectracide Weed Stop follows closely with 11% of respondents reporting purchasing it in 2011.

Table 4A-2: Lawn Herbicides (Weed Killer) - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	702	133	175	267	127	593	33*	45*	31*	502	161	39*	130	175	143	126	128
Don't know	123	27	29	46	21	101	5	11	6	92	26	5	24	34	27	20	18
	17.5%	20.3%	16.6%	17.2%	16.5%	17.0%	15.2%	24.4%	19.4%	18.3%	16.1%	12.8%	18.5%	19.4%	18.9%	15.9%	14.1%
Total answering	579	106	146	221	106	492	28**	34*	25**	410	135	34*	106	141	116	106	110
Bayer (Net)	125	22	27	51	25	95	15	12	3	87	31	7	26	21	27	18	33
	21.6%	20.8%	18.5%	23.1%	23.6%	19.3%	53.6%	35.3%	12.0%	21.2%	23.0%	20.6%	24.5%	14.9%	23.3%	17.0%	30.0%
								F					n		n		NP
Bayer Advanced Weed Killer	86	13	18	38	17	72	7	4	3	57	23	6	17	17	22	12	18
	14.9%	12.3%	12.3%	17.2%	16.0%	14.6%	25.0%	11.8%	12.0%	13.9%	17.0%	17.6%	16.0%	12.1%	19.0%	11.3%	16.4%
Bayer Advanced Lawn	37	10	6	17	4	26	7	3	1	27	10	0	8	4	5	7	13
	6.4%	9.4%	4.1%	7.7%	3.8%	5.3%	25.0%	8.8%	4.0%	6.6%	7.4%	-	7.5%	2.8%	4.3%	6.6%	11.8%
		ce											n				NO
Bayer Advanced Natria	24	6	5	7	6	12	7	5	0	19	4	1	4	3	2	1	14
	4.1%	5.7%	3.4%	3.2%	5.7%	2.4%	25.0%	14.7%	-	4.6%	3.0%	2.9%	3.8%	2.1%	1.7%	0.9%	12.7%
								F									MNOP
Bonide (Net)	18	5	2	5	6	14	3	0	1	17	1	0	4	2	2	3	7
	3.1%	4.7%	1.4%	2.3%	5.7%	2.8%	10.7%	-	4.0%	4.1%	0.7%	-	3.8%	1.4%	1.7%	2.8%	6.4%
					c					k							No
Bonide Weed Beater	18	5	2	5	6	14	3	0	1	17	1	0	4	2	2	3	7
	3.1%	4.7%	1.4%	2.3%	5.7%	2.8%	10.7%	-	4.0%	4.1%	0.7%	-	3.8%	1.4%	1.7%	2.8%	6.4%
					c					k							No
Casoron Granules	7	1	1	2	3	6	1	0	0	7	0	0	1	1	2	0	3
	1.2%	0.9%	0.7%	0.9%	2.8%	1.2%	3.6%	-	-	1.7%	-	-	0.9%	0.7%	1.7%	-	2.7%
																	p
Crad-E-Rad	13	4	3	3	3	7	5	1	0	11	2	0	1	2	1	1	8
	2.2%	3.8%	2.1%	1.4%	2.8%	1.4%	17.9%	2.9%	-	2.7%	1.5%	-	0.9%	1.4%	0.9%	0.9%	7.3%
																	MNOP
Enforcer Weed Shot	18	2	4	8	4	13	2	1	2	12	3	3	2	4	4	1	7
	3.1%	1.9%	2.7%	3.6%	3.8%	2.6%	7.1%	2.9%	8.0%	2.9%	2.2%	8.8%	1.9%	2.8%	3.4%	0.9%	6.4%
												jk					P

(Continued)

Kline

Table 4A-2: Lawn Herbicides (Weed Killer) - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Fortify	6	3	2	1	0	5	1	0	0	6	0	0	1	0	1	1	3
	1.0%	2.8%	1.4%	0.5%	-	1.0%	3.6%	-	-	1.5%	-	-	0.9%	-	0.9%	0.9%	2.7%
		de															n
Green Light (Net)	29	5	5	11	8	19	6	3	1	24	4	1	6	5	3	3	12
	5.0%	4.7%	3.4%	5.0%	7.5%	3.9%	21.4%	8.8%	4.0%	5.9%	3.0%	2.9%	5.7%	3.5%	2.6%	2.8%	10.9%
																	NOP
Green Light Crabgrass Preventer	13	3	0	5	5	9	3	1	0	11	1	1	3	0	1	1	8
	2.2%	2.8%	-	2.3%	4.7%	1.8%	10.7%	2.9%	-	2.7%	0.7%	2.9%	2.8%	-	0.9%	0.9%	7.3%
		C		c	C								N				NOP
Green Light Portrait	9	3	2	3	1	5	4	0	0	7	2	0	1	1	1	1	5
	1.6%	2.8%	1.4%	1.4%	0.9%	1.0%	14.3%	-	-	1.7%	1.5%	-	0.9%	0.7%	0.9%	0.9%	4.5%
																	No
Green Light Wipe-Out	17	3	4	6	4	11	3	2	1	13	3	1	3	4	2	2	6
	2.9%	2.8%	2.7%	2.7%	3.8%	2.2%	10.7%	5.9%	4.0%	3.2%	2.2%	2.9%	2.8%	2.8%	1.7%	1.9%	5.5%
Hi-Yield	14	2	1	7	4	13	1	0	0	11	2	1	2	5	1	3	3
	2.4%	1.9%	0.7%	3.2%	3.8%	2.6%	3.6%	-	-	2.7%	1.5%	2.9%	1.9%	3.5%	0.9%	2.8%	2.7%
					c												
Image	5	2	1	2	0	3	2	0	0	4	1	0	1	0	1	0	3
	0.9%	1.9%	0.7%	0.9%	-	0.6%	7.1%	-	-	1.0%	0.7%	-	0.9%	-	0.9%	-	2.7%
																	np
Lily Miller	11	1	1	1	8	8	2	1	0	8	3	0	1	1	4	1	4
	1.9%	0.9%	0.7%	0.5%	7.5%	1.6%	7.1%	2.9%	-	2.0%	2.2%	-	0.9%	0.7%	3.4%	0.9%	3.6%
					BCD												
Ortho Weed-B-Gon (Net)	211	36	75	64	36	186	7	10	8	148	50	13	36	58	46	39	32
	36.4%	34.0%	51.4%	29.0%	34.0%	37.8%	25.0%	29.4%	32.0%	36.1%	37.0%	38.2%	34.0%	41.1%	39.7%	36.8%	29.1%
			BDE											Q	q		
Ortho Weed-B-Gon Max Plus Crabgrass	195	33	69	61	32	172	6	10	7	136	46	13	32	54	42	38	29
	33.7%	31.1%	47.3%	27.6%	30.2%	35.0%	21.4%	29.4%	28.0%	33.2%	34.1%	38.2%	30.2%	38.3%	36.2%	35.8%	26.4%
			BDE											Q			
Ortho Weed-B-Gon OTHER (Please Specify)	17	3	7	3	4	15	1	0	1	12	5	0	4	4	5	1	3
	2.9%	2.8%	4.8%	1.4%	3.8%	3.0%	3.6%	-	4.0%	2.9%	3.7%	-	3.8%	2.8%	4.3%	0.9%	2.7%
			D														

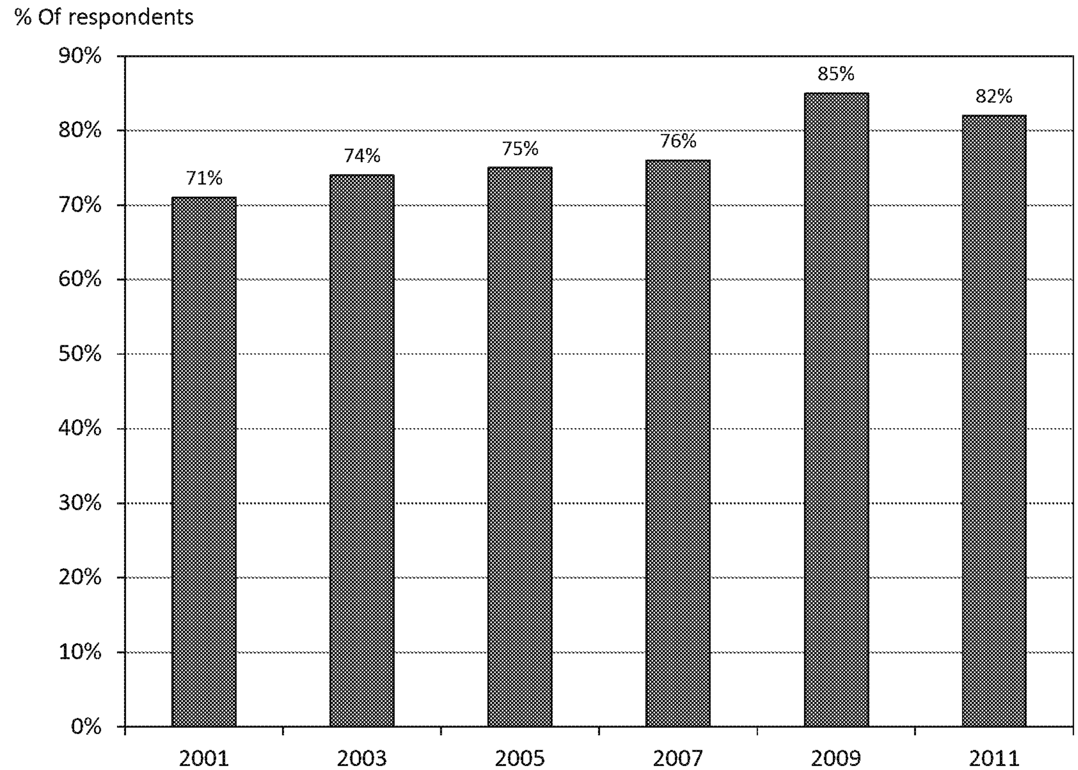
(Continued)

Table 4A-2: Lawn Herbicides (Weed Killer) - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Preen Lawn	14	4	6	2	2	13	0	1	0	8	5	1	1	4	6	1	2
	2.4%	3.8%	4.1%	0.9%	1.9%	2.6%	-	2.9%	-	2.0%	3.7%	2.9%	0.9%	2.8%	5.2%	0.9%	1.8%
		d	D												mp		
Pennington Crabgrass Preventer	10	1	2	6	1	8	1	0	1	8	2	0	4	0	1	1	4
	1.7%	0.9%	1.4%	2.7%	0.9%	1.6%	3.6%	-	4.0%	2.0%	1.5%	-	3.8%	-	0.9%	0.9%	3.6%
													N				N
Signature Series Crabgrass Preventer	6	2	1	3	0	4	2	0	0	5	1	0	0	1	1	0	4
	1.0%	1.9%	0.7%	1.4%	-	0.8%	7.1%	-	-	1.2%	0.7%	-	-	0.7%	0.9%	-	3.6%
																	MP
Scotts (Net)	147	41	29	51	26	130	7	7	3	110	31	6	33	29	30	31	24
	25.4%	38.7%	19.9%	23.1%	24.5%	26.4%	25.0%	20.6%	12.0%	26.8%	23.0%	17.6%	31.1%	20.6%	25.9%	29.2%	21.8%
		CDE											n				
Scotts Halts Crabgrass	73	26	17	18	12	64	4	3	2	54	17	2	14	16	11	18	14
	12.6%	24.5%	11.6%	8.1%	11.3%	13.0%	14.3%	8.8%	8.0%	13.2%	12.6%	5.9%	13.2%	11.3%	9.5%	17.0%	12.7%
		CDE														o	
Scotts Touch Up Weed Control	87	18	13	41	15	75	4	5	3	63	19	5	25	16	21	13	12
	15.0%	17.0%	8.9%	18.6%	14.2%	15.2%	14.3%	14.7%	12.0%	15.4%	14.1%	14.7%	23.6%	11.3%	18.1%	12.3%	10.9%
		c		C									NPQ				
Shultz Supreme Green	9	4	2	2	1	8	1	0	0	8	1	0	0	1	4	0	4
	1.6%	3.8%	1.4%	0.9%	0.9%	1.6%	3.6%	-	-	2.0%	0.7%	-	-	0.7%	3.4%	-	3.6%
		d													mp		MP
Spectracide Weed Stop	66	10	14	33	9	60	2	2	2	46	17	3	7	13	19	10	17
	11.4%	9.4%	9.6%	14.9%	8.5%	12.2%	7.1%	5.9%	8.0%	11.2%	12.6%	8.8%	6.6%	9.2%	16.4%	9.4%	15.5%
															Mn		M
Speedzone Lawn Weed	13	4	3	2	4	10	3	0	0	13	0	0	2	3	1	2	5
	2.2%	3.8%	2.1%	0.9%	3.8%	2.0%	10.7%	-	-	3.2%	-	-	1.9%	2.1%	0.9%	1.9%	4.5%
		d			d					K							o
Trimec Lawn Weed Killer	10	1	6	1	2	9	0	1	0	4	5	1	1	4	3	1	1
	1.7%	0.9%	4.1%	0.5%	1.9%	1.8%	-	2.9%	-	1.0%	3.7%	2.9%	0.9%	2.8%	2.6%	0.9%	0.9%
			D								J						
Other	44	7	5	24	8	34	1	1	8	28	14	2	8	13	5	8	10
	7.6%	6.6%	3.4%	10.9%	7.5%	6.9%	3.6%	2.9%	32.0%	6.8%	10.4%	5.9%	7.5%	9.2%	4.3%	7.5%	9.1%
				C													
Sigma	822	171	195	301	155	676	73	41	32	595	187	40	147	173	168	127	207
	142.0%	161.3%	133.6%	136.2%	146.2%	137.4%	260.7%	120.6%	128.0%	145.1%	138.5%	117.6%	138.7%	122.7%	144.8%	119.8%	188.2%

Kline

Figure 4A-2: Percentage of Purchasers Who Recall the Last Brand of Lawn Herbicide they Purchased, 2001 to 2011



PRODUCT FORM

Unlike in 2009 where liquid concentrates was the most commonly purchased form of lawn herbicide in 2011 granules are the most commonly purchased form of lawn herbicides, accounting for 33% of the responses in 2011. Granules are most often purchased in the Northeast and West and least often in the Midwest. Liquid concentrates and ready-to-use liquids with an applicator follow, accounting for 30% and 28% of responses, respectively. Liquid concentrate products are purchased most often in the South and Midwest, with 32% each reporting their use.

Table 4A-3: Lawn Herbicides (Weed Killer) - What Form Was The Product? Base: Bought Within Last Year		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	702	133	175	267	127	593	33*	45*	31*	502	161	39*	130	175	143	126	128
Don't know	22	3	3	10	6	20	2	0	0	16	5	1	5	6	2	6	3
	3.1%	2.3%	1.7%	3.7%	4.7%	3.4%	6.1%	-	-	3.2%	3.1%	2.6%	3.8%	3.4%	1.4%	4.8%	2.3%
Total answering	680	130	172	257	121	573	31*	45*	31*	486	156	38*	125	169	141	120	125
Aerosol spray	66	22	10	21	13	47	7	11	1	51	14	1	12	14	12	12	16
	9.7%	16.9%	5.8%	8.2%	10.7%	8.2%	22.6%	24.4%	3.2%	10.5%	9.0%	2.6%	9.6%	8.3%	8.5%	10.0%	12.8%
		CD					FI	FI									
Dust	49	18	6	18	7	39	7	2	1	38	8	3	8	11	9	5	16
	7.2%	13.8%	3.5%	7.0%	5.8%	6.8%	22.6%	4.4%	3.2%	7.8%	5.1%	7.9%	6.4%	6.5%	6.4%	4.2%	12.8%
		CDE					FHI										mnoP
Granules	221	51	45	80	45	188	14	10	9	168	47	6	37	52	42	44	46
	32.5%	39.2%	26.2%	31.1%	37.2%	32.8%	45.2%	22.2%	29.0%	34.6%	30.1%	15.8%	29.6%	30.8%	29.8%	36.7%	36.8%
		C			C		H			L	l						
Liquid concentrate	202	33	55	81	33	173	11	9	9	135	56	11	28	51	47	33	43
	29.7%	25.4%	32.0%	31.5%	27.3%	30.2%	35.5%	20.0%	29.0%	27.8%	35.9%	28.9%	22.4%	30.2%	33.3%	27.5%	34.4%
											j				M		M
Ready-to-use (RTU) with trigger spray	191	36	52	75	28	163	9	12	7	131	47	13	35	49	44	27	36
	28.1%	27.7%	30.2%	29.2%	23.1%	28.4%	29.0%	26.7%	22.6%	27.0%	30.1%	34.2%	28.0%	29.0%	31.2%	22.5%	28.8%
RTU liquid with hose sprayer	99	17	30	34	18	80	4	6	9	65	29	5	22	26	25	14	12
	14.6%	13.1%	17.4%	13.2%	14.9%	14.0%	12.9%	13.3%	29.0%	13.4%	18.6%	13.2%	17.6%	15.4%	17.7%	11.7%	9.6%
									Fh				q		q		
Water soluble powder	14	5	1	6	2	9	2	3	0	9	3	2	3	2	3	3	3
	2.1%	3.8%	0.6%	2.3%	1.7%	1.6%	6.5%	6.7%	-	1.9%	1.9%	5.3%	2.4%	1.2%	2.1%	2.5%	2.4%
		C					F	F									
Other	2	0	0	0	2	2	0	0	0	1	1	0	2	0	0	0	0
	0.3%	-	-	-	1.7%	0.3%	-	-	-	0.2%	0.6%	-	1.6%	-	-	-	-
					cD												
Sigma	844	182	199	315	148	701	54	53	36	598	205	41	147	205	182	138	172
	124.1%	140.0%	115.7%	122.6%	122.3%	122.3%	174.2%	117.8%	116.1%	123.0%	131.4%	107.9%	117.6%	121.3%	129.1%	115.0%	137.6%

RETAIL OUTLET

Home improvement stores are the most frequently mentioned retail outlets for lawn herbicides, accounting for 46% of the responses, a decrease from 47% reported in 2009. Discount or mass merchandise stores frequency of mentions decreased from 30% in 2009 to 28% in 2011, followed by lawn and garden centers with 9%. Responses for home improvement centers are approximately the same across all regions with a range from 42% to 48%. Forty-eight percent of urban respondents mention home improvement centers, compared with 41% for suburban and 35% for rural respondents. Rural respondents are the most likely to purchase at discount or mass merchandise stores, with 43% purchasing there, as compared with 26% of urban respondents.

Lawn herbicides are typically used on several different weeds or problems. In 2011, as in years past, dandelions are the most frequently identified weed treated with lawn herbicides, accounting for 60% of the responses, lower than the 67% in 2009. Crabgrass and assorted broadleaf weeds follow with 56% and 30% of the respondents, respectively, as shown in Table 4A-5. Applications for dandelions are most prevalent in the Midwest with 74% reporting they treat them, and less so in the South, while crabgrass is most often treated in the Midwest and Northeast. Many respondents identified more than one type of weed that they treat with herbicides.

Table 4A-4: Lawn Herbicides (Weed Killer) - Place Product Purchased Most Often? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	702	133	175	267	127	593	33*	45*	31*	502	161	39*	130	175	143	126	128
Don't know	30	5	7	10	8	23	1	3	3	20	8	2	12	7	6	2	3
	4.3%	3.8%	4.0%	3.7%	6.3%	3.9%	3.0%	6.7%	9.7%	4.0%	5.0%	5.1%	9.2%	4.0%	4.2%	1.6%	2.3%
													noPQ				
Total answering	672	128	168	257	119	570	32*	42*	28**	482	153	37*	118	168	137	124	125
Discount/mass merchandise store (e.g. Walmart, Kmart)	188	29	53	74	32	155	7	15	11	125	47	16	38	66	34	25	25
	28.0%	22.7%	31.5%	28.8%	26.9%	27.2%	21.9%	35.7%	39.3%	25.9%	30.7%	43.2%	32.2%	39.3%	24.8%	20.2%	20.0%
			b									J	PQ	OPQ			
Lawn and garden center/nursery	58	14	10	26	8	45	3	9	1	45	9	4	14	9	12	13	10
	8.6%	10.9%	6.0%	10.1%	6.7%	7.9%	9.4%	21.4%	3.6%	9.3%	5.9%	10.8%	11.9%	5.4%	8.8%	10.5%	8.0%
								F					N				
Supermarket/grocery store	19	4	3	6	6	10	4	4	1	15	4	0	1	1	6	5	6
	2.8%	3.1%	1.8%	2.3%	5.0%	1.8%	12.5%	9.5%	3.6%	3.1%	2.6%	-	0.8%	0.6%	4.4%	4.0%	4.8%
							F	F							mN	N	mN
Home improvement center (e.g. Home Depot, Lowes)	306	62	70	123	51	264	16	13	13	230	63	13	40	71	64	65	66
	45.5%	48.4%	41.7%	47.9%	42.9%	46.3%	50.0%	31.0%	46.4%	47.7%	41.2%	35.1%	33.9%	42.3%	46.7%	52.4%	52.8%
						h									M	Mn	Mn
Hardware store (e.g. True Value)	35	7	13	8	7	34	1	0	0	24	9	2	11	6	8	3	7
	5.2%	5.5%	7.7%	3.1%	5.9%	6.0%	3.1%	-	-	5.0%	5.9%	5.4%	9.3%	3.6%	5.8%	2.4%	5.6%
			D										NP				
Farm supply store	34	5	14	10	5	33	0	0	1	22	10	2	9	8	5	9	3
	5.1%	3.9%	8.3%	3.9%	4.2%	5.8%	-	-	3.6%	4.6%	6.5%	5.4%	7.6%	4.8%	3.6%	7.3%	2.4%
			d										q			q	
Mail order/catalog	2	0	1	0	1	2	0	0	0	0	2	0	2	0	0	0	0
	0.3%	-	0.6%	-	0.8%	0.4%	-	-	-	-	1.3%	-	1.7%	-	-	-	-
											J		n				
Warehouse/wholesale club	15	3	1	7	4	14	1	0	0	10	5	0	1	5	3	0	6
	2.2%	2.3%	0.6%	2.7%	3.4%	2.5%	3.1%	-	-	2.1%	3.3%	-	0.8%	3.0%	2.2%	-	4.8%
					c									p	p		mP
Other	15	4	3	3	5	13	0	1	1	11	4	0	2	2	5	4	2
	2.2%	3.1%	1.8%	1.2%	4.2%	2.3%	-	2.4%	3.6%	2.3%	2.6%	-	1.7%	1.2%	3.6%	3.2%	1.6%
					d												
Sigma	672	128	168	257	119	570	32	42	28	482	153	37	118	168	137	124	125
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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PRODUCT USAGE

Table 4A-5: Lawn Herbicides (Weed Killer) - What Weeds Or Plants Were A Problem? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	702	133	175	267	127	593	33*	45*	31*	502	161	39*	130	175	143	126	128
Total answering	702	133	175	267	127	593	33*	45*	31*	502	161	39*	130	175	143	126	128
Bermuda grass	74	10	9	35	20	62	5	6	1	56	16	2	13	16	13	13	19
	10.5%	7.5%	5.1%	13.1%	15.7%	10.5%	15.2%	13.3%	3.2%	11.2%	9.9%	5.1%	10.0%	9.1%	9.1%	10.3%	14.8%
				bC	BC												
Chick weed	102	19	26	43	14	88	8	4	2	72	24	6	18	20	20	17	27
	14.5%	14.3%	14.9%	16.1%	11.0%	14.8%	24.2%	8.9%	6.5%	14.3%	14.9%	15.4%	13.8%	11.4%	14.0%	13.5%	21.1%
							hi										N
Crabgrass	393	82	109	142	60	342	21	16	14	282	85	26	63	101	79	73	77
	56.0%	61.7%	62.3%	53.2%	47.2%	57.7%	63.6%	35.6%	45.2%	56.2%	52.8%	66.7%	48.5%	57.7%	55.2%	57.9%	60.2%
		E	dE			H	H										m
Dandelions	420	82	129	130	79	366	18	23	13	296	104	20	70	97	95	77	81
	59.8%	61.7%	73.7%	48.7%	62.2%	61.7%	54.5%	51.1%	41.9%	59.0%	64.6%	51.3%	53.8%	55.4%	66.4%	61.1%	63.3%
		D	BDE		D	I									MN		
Ivy, vines	99	22	27	36	14	81	7	5	6	63	32	4	24	22	22	11	20
	14.1%	16.5%	15.4%	13.5%	11.0%	13.7%	21.2%	11.1%	19.4%	12.5%	19.9%	10.3%	18.5%	12.6%	15.4%	8.7%	15.6%
											J		P		p		p
Onions	58	15	7	32	4	47	5	4	2	42	14	2	11	14	11	9	13
	8.3%	11.3%	4.0%	12.0%	3.1%	7.9%	15.2%	8.9%	6.5%	8.4%	8.7%	5.1%	8.5%	8.0%	7.7%	7.1%	10.2%
		CE		CE													
Plantain	27	10	5	9	3	23	4	0	0	18	9	0	2	9	3	5	8
	3.8%	7.5%	2.9%	3.4%	2.4%	3.9%	12.1%	-	-	3.6%	5.6%	-	1.5%	5.1%	2.1%	4.0%	6.3%
		cde					FHi							m			mo
Thistles	86	8	35	28	15	74	2	4	6	54	24	8	19	20	22	9	16
	12.3%	6.0%	20.0%	10.5%	11.8%	12.5%	6.1%	8.9%	19.4%	10.8%	14.9%	20.5%	14.6%	11.4%	15.4%	7.1%	12.5%
			BDe									j	p		P		
Assorted broadleaf weeds	212	37	57	83	35	195	7	2	8	149	55	8	32	55	45	42	38
	30.2%	27.8%	32.6%	31.1%	27.6%	32.9%	21.2%	4.4%	25.8%	29.7%	34.2%	20.5%	24.6%	31.4%	31.5%	33.3%	29.7%
						H	H		H								
Assorted grasses	132	22	25	58	27	107	6	13	6	94	30	8	30	30	30	18	24
	18.8%	16.5%	14.3%	21.7%	21.3%	18.0%	18.2%	28.9%	19.4%	18.7%	18.6%	20.5%	23.1%	17.1%	21.0%	14.3%	18.8%
				c				f					p				
Assorted woody plants	26	6	8	7	5	22	1	2	1	13	12	1	4	7	5	5	5
	3.7%	4.5%	4.6%	2.6%	3.9%	3.7%	3.0%	4.4%	3.2%	2.6%	7.5%	2.6%	3.1%	4.0%	3.5%	4.0%	3.9%
											J						
Other	34	4	9	14	7	28	2	2	2	17	15	2	9	10	7	5	3
	4.8%	3.0%	5.1%	5.2%	5.5%	4.7%	6.1%	4.4%	6.5%	3.4%	9.3%	5.1%	6.9%	5.7%	4.9%	4.0%	2.3%
											J		q				
Sigma	1663	317	446	617	283	1435	86	81	61	1156	420	87	295	401	352	284	331
	236.9%	238.3%	254.9%	231.1%	222.8%	242.0%	260.6%	180.0%	196.8%	230.3%	260.9%	223.1%	226.9%	229.1%	246.2%	225.4%	258.6%

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4B. GARDEN AND NONSELECTIVE HERBICIDES

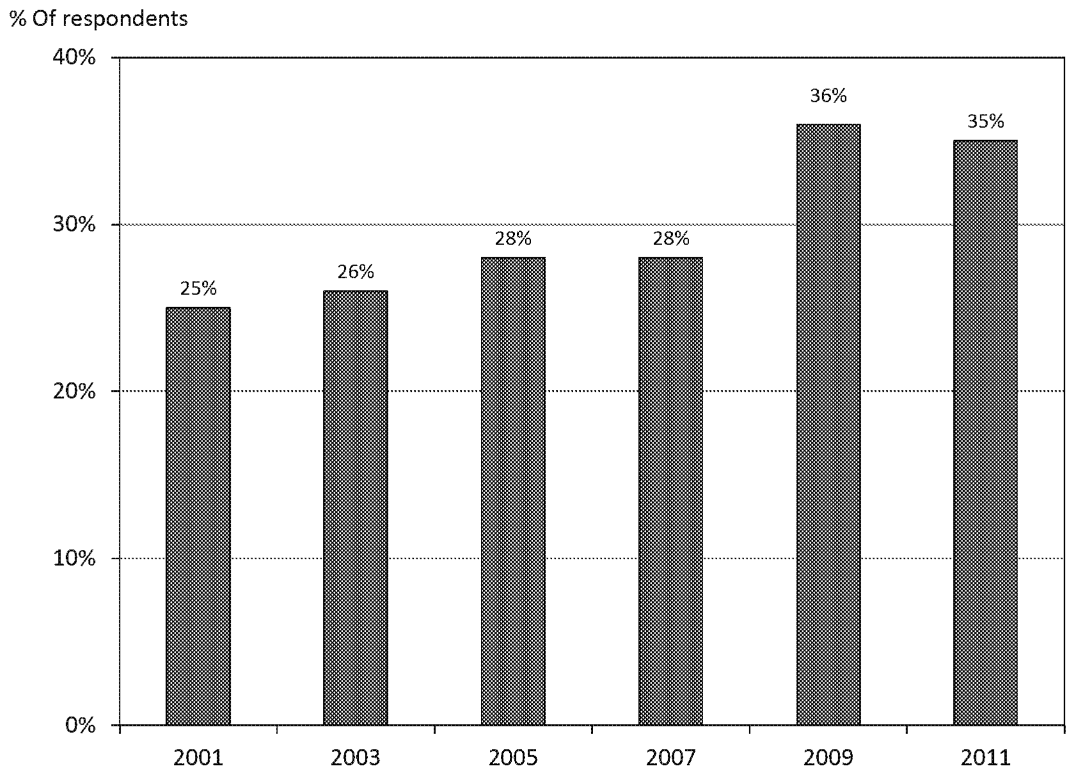
OVERVIEW

Overall, 35% of the respondents report purchasing garden and/or nonselective herbicides in 2011, a decrease from 36% in 2009. Forty-nine percent of respondents report that they do not use garden or nonselective herbicides. This represents an increase from 46% in 2009.

Table 4B-1: Garden and Non-Selective Herbicides (Weed Killer) - When Last Bought?

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Base: Total Respondents	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
Total answering	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
One year ago or less (net)	543	105	125	206	107	448	28	43	24	395	121	27	103	124	98	120	98
	35.0%	34.5%	34.1%	37.5%	32.2%	38.2%	35.0%	20.0%	28.6%	34.8%	39.4%	24.8%	27.2%	30.1%	36.0%	48.6%	40.3%
						Hi	H			L	L				M	MNOq	MN
Less than 6 months ago	222	41	54	89	38	187	9	14	12	158	55	9	40	52	39	51	40
	14.3%	13.5%	14.7%	16.2%	11.4%	15.9%	11.3%	6.5%	14.3%	13.9%	17.9%	8.3%	10.6%	12.6%	14.3%	20.6%	16.5%
				e		H			H	I	jL					MNo	M
6 months to 1 year ago	321	64	71	117	69	261	19	29	12	237	66	18	63	72	59	69	58
	20.7%	21.1%	19.3%	21.3%	20.8%	22.3%	23.8%	13.5%	14.3%	20.9%	21.5%	16.5%	16.7%	17.5%	21.7%	27.9%	23.9%
						Hi	H									MN	MN
More than 1 year ago	242	32	62	85	63	193	12	23	14	177	43	22	62	72	45	23	40
	15.6%	10.5%	16.9%	15.5%	19.0%	16.5%	15.0%	10.7%	16.7%	15.6%	14.0%	20.2%	16.4%	17.5%	16.5%	9.3%	16.5%
			B	B	B	H							P	P	P		P
Do not use product	767	167	180	258	162	532	40	149	46	564	143	60	213	216	129	104	105
	49.4%	54.9%	49.0%	47.0%	48.8%	45.4%	50.0%	69.3%	54.8%	49.6%	46.6%	55.0%	56.3%	52.4%	47.4%	42.1%	43.2%
		D						FGI	f				OPQ	PQ			
Sigma	1,552	304	367	549	332	1,173	80	215	84	1,136	307	109	378	412	272	247	243
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Figure 4B-1: Percentage of Respondents Who Purchased Garden and Nonselective Herbicides During the Last 12 Months, 2001 to 2011



GEOGRAPHIC REGION

In 2011, the purchase incidence of garden and nonselective herbicides by respondents was consistent across all regions, ranging from 32% in the West to 38% in the South.

POPULATION DENSITY AND INCOME LEVEL

Fewer purchases were made by respondents in rural areas than in urban and suburban. The higher the income of the family the more they tend to purchase garden and non-selective herbicides with only 27% of respondents with income under $25,000 purchasing garden and non-selective herbicides in 2011.

BRAND RECOLLECTION

Among respondents indicating a particular brand, 54% report purchasing Roundup Lawn & Garden herbicide in 2011, including 49% for the Roundup Weed & Grass, 6% for Roundup Poison Ivy, and 1% for other Roundup products. This is down from 70% in 2009. Roundup is the most frequently mentioned brand by respondents in all regions. Various Ortho products rank second with 20% of respondents. Bayer, in total, was listed by 13% of respondents.

Table 4B-2: Garden and Non-Selective Herbicides (Weed Killer) - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	543	105	125	206	107	448	28**	43*	24**	395	121	27**	103	124	98*	120	98*
Don't know	82	15	20	36	11	65	6	9	2	62	17	3	19	21	10	18	14
	15.1%	14.3%	16.0%	17.5%	10.3%	14.5%	21.4%	20.9%	8.3%	15.7%	14.0%	11.1%	18.4%	16.9%	10.2%	15.0%	14.3%
				e									o				
Total answering	461	90*	105	170	96*	383	22**	34*	22**	333	104	24**	84*	103	88*	102	84*
Bayer (Net)	61	13	13	26	9	41	8	9	3	47	12	2	15	8	14	6	18
	13.2%	14.4%	12.4%	15.3%	9.4%	10.7%	36.4%	26.5%	13.6%	14.1%	11.5%	8.3%	17.9%	7.8%	15.9%	5.9%	21.4%
								F					NP		nP		NP
Bayer Advanced Brush Kill	40	11	6	17	6	26	5	6	3	32	8	0	9	6	10	3	12
	8.7%	12.2%	5.7%	10.0%	6.3%	6.8%	22.7%	17.6%	13.6%	9.6%	7.7%	-	10.7%	5.8%	11.4%	2.9%	14.3%
								F					P		P		nP
Bayer Advanced Natria Grass & Weed	34	8	8	13	5	25	6	3	0	25	7	2	7	4	7	4	12
	7.4%	8.9%	7.6%	7.6%	5.2%	6.5%	27.3%	8.8%	-	7.5%	6.7%	8.3%	8.3%	3.9%	8.0%	3.9%	14.3%
																	NP
Bonide (Net)	49	14	8	15	12	30	11	8	0	41	7	1	4	12	9	6	18
	10.6%	15.6%	7.6%	8.8%	12.5%	7.8%	50.0%	23.5%	-	12.3%	6.7%	4.2%	4.8%	11.7%	10.2%	5.9%	21.4%
		c						F						m			MnOP
Bonide Brush Killer	21	8	2	8	3	11	6	4	0	15	6	0	1	4	3	2	11
	4.6%	8.9%	1.9%	4.7%	3.1%	2.9%	27.3%	11.8%	-	4.5%	5.8%	-	1.2%	3.9%	3.4%	2.0%	13.1%
		Ce						F									MNOP
Bonide Grass Beater	19	9	3	4	3	11	7	1	0	17	1	1	3	4	5	4	3
	4.1%	10.0%	2.9%	2.4%	3.1%	2.9%	31.8%	2.9%	-	5.1%	1.0%	4.2%	3.6%	3.9%	5.7%	3.9%	3.6%
		CDe								k							
Bonide Kleenup	21	8	4	5	4	11	7	3	0	19	2	0	1	5	3	3	9
	4.6%	8.9%	3.8%	2.9%	4.2%	2.9%	31.8%	8.8%	-	5.7%	1.9%	-	1.2%	4.9%	3.4%	2.9%	10.7%
		D						f									MoP
Bonide Total Vegetation Killer	17	3	1	8	5	12	2	3	0	15	2	0	0	3	4	1	9
	3.7%	3.3%	1.0%	4.7%	5.2%	3.1%	9.1%	8.8%	-	4.5%	1.9%	-	-	2.9%	4.5%	1.0%	10.7%
				c	c			f							m		MNP
Easy Weeder	19	4	5	5	5	16	2	1	0	14	5	0	4	4	3	3	5
	4.1%	4.4%	4.8%	2.9%	5.2%	4.2%	9.1%	2.9%	-	4.2%	4.8%	-	4.8%	3.9%	3.4%	2.9%	6.0%

(Continued)

Kline

Table 4B-2: Garden and Non-Selective Herbicides (Weed Killer) - Brand Last Purchased? Base: Bought Within Last Year																	
		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Enforcer (Net)	12	2	3	4	3	7	2	2	1	9	3	0	3	1	3	2	3
	2.6%	2.2%	2.9%	2.4%	3.1%	1.8%	9.1%	5.9%	4.5%	2.7%	2.9%	-	3.6%	1.0%	3.4%	2.0%	3.6%
Enforcer Roots & All	11	2	3	4	2	6	2	2	1	9	2	0	2	1	3	2	3
	2.4%	2.2%	2.9%	2.4%	2.1%	1.6%	9.1%	5.9%	4.5%	2.7%	1.9%	-	2.4%	1.0%	3.4%	2.0%	3.6%
Enforcer OTHER (Please Specify)	1	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0
	0.2%	-	-	-	1.0%	0.3%	-	-	-	-	1.0%	-	1.2%	-	-	-	-
											j						
FertiLome	6	3	0	3	0	4	1	1	0	3	2	1	0	3	2	1	0
	1.3%	3.3%	-	1.8%	-	1.0%	4.5%	2.9%	-	0.9%	1.9%	4.2%	-	2.9%	2.3%	1.0%	-
		ce															
Finale	2	1	1	0	0	2	0	0	0	1	1	0	1	0	1	0	0
	0.4%	1.1%	1.0%	-	-	0.5%	-	-	-	0.3%	1.0%	-	1.2%	-	1.1%	-	-
Garden Safe (Net)	21	5	4	8	4	13	5	2	1	15	4	2	9	2	5	2	3
	4.6%	5.6%	3.8%	4.7%	4.2%	3.4%	22.7%	5.9%	4.5%	4.5%	3.8%	8.3%	10.7%	1.9%	5.7%	2.0%	3.6%
													NPq				
Garden Safe Weed & Grass Killer	18	4	3	7	4	11	4	2	1	14	2	2	9	1	4	2	2
	3.9%	4.4%	2.9%	4.1%	4.2%	2.9%	18.2%	5.9%	4.5%	4.2%	1.9%	8.3%	10.7%	1.0%	4.5%	2.0%	2.4%
													NPQ				
Garden Safe Garden Weed Preventer	9	2	3	4	0	5	3	0	1	4	4	1	3	1	4	0	1
	2.0%	2.2%	2.9%	2.4%	-	1.3%	13.6%	-	4.5%	1.2%	3.8%	4.2%	3.6%	1.0%	4.5%	-	1.2%
			e								j		p		P		
Gordon's (Net)	11	4	2	3	2	7	2	1	1	9	2	0	2	1	3	1	4
	2.4%	4.4%	1.9%	1.8%	2.1%	1.8%	9.1%	2.9%	4.5%	2.7%	1.9%	-	2.4%	1.0%	3.4%	1.0%	4.8%
Gordon's Brush-No-More	5	3	0	1	1	2	2	1	0	4	1	0	1	0	1	0	3
	1.1%	3.3%	-	0.6%	1.0%	0.5%	9.1%	2.9%	-	1.2%	1.0%	-	1.2%	-	1.1%	-	3.6%
		cd															np
Gordon's Pronto	8	3	2	2	1	5	2	0	1	6	2	0	1	1	2	1	3
	1.7%	3.3%	1.9%	1.2%	1.0%	1.3%	9.1%	-	4.5%	1.8%	1.9%	-	1.2%	1.0%	2.3%	1.0%	3.6%
Green Light (Net)	11	3	3	2	3	8	3	0	0	10	1	0	1	2	3	1	4
	2.4%	3.3%	2.9%	1.2%	3.1%	2.1%	13.6%	-	-	3.0%	1.0%	-	1.2%	1.9%	3.4%	1.0%	4.8%

(Continued)

Table 4B-2: Garden and Non-Selective Herbicides (Weed Killer) - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Green Light Amaze	9	2	2	2	3	7	2	0	0	8	1	0	1	2	2	1	3
	2.0%	2.2%	1.9%	1.2%	3.1%	1.8%	9.1%	-	-	2.4%	1.0%	-	1.2%	1.9%	2.3%	1.0%	3.6%
Green Light Com-Pleet	2	1	1	0	0	1	1	0	0	2	0	0	0	0	1	0	1
	0.4%	1.1%	1.0%	-	-	0.3%	4.5%	-	-	0.6%	-	-	-	-	1.1%	-	1.2%
Image	2	0	0	1	1	1	0	1	0	2	0	0	0	1	1	0	0
	0.4%	-	-	0.6%	1.0%	0.3%	-	2.9%	-	0.6%	-	-	-	1.0%	1.1%	-	-
								F									
Lilly Miller (Net)	4	0	0	0	4	3	0	1	0	3	1	0	2	1	0	0	1
	0.9%	-	-	-	4.2%	0.8%	-	2.9%	-	0.9%	1.0%	-	2.4%	1.0%	-	-	1.2%
					bCD												
Lilly Miller Noxall	3	0	0	0	3	2	0	1	0	3	0	0	1	1	0	0	1
	0.7%	-	-	-	3.1%	0.5%	-	2.9%	-	0.9%	-	-	1.2%	1.0%	-	-	1.2%
					bcD												
Lilly Miller OTHER (Please Specify)	1	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0
	0.2%	-	-	-	1.0%	0.3%	-	-	-	-	1.0%	-	1.2%	-	-	-	-
											j						
Ortho (Net)	94	21	15	35	23	75	5	6	8	69	22	3	15	27	15	17	20
	20.4%	23.3%	14.3%	20.6%	24.0%	19.6%	22.7%	17.6%	36.4%	20.7%	21.2%	12.5%	17.9%	26.2%	17.0%	16.7%	23.8%
					c									p			
Ortho Grass-B-Gon	45	10	8	18	9	37	3	3	2	31	13	1	3	16	7	6	13
	9.8%	11.1%	7.6%	10.6%	9.4%	9.7%	13.6%	8.8%	9.1%	9.3%	12.5%	4.2%	3.6%	15.5%	8.0%	5.9%	15.5%
														MP			MP
Ortho Season Long Grass Max	20	5	1	11	3	15	0	1	4	16	4	0	5	3	3	5	4
	4.3%	5.6%	1.0%	6.5%	3.1%	3.9%	-	2.9%	18.2%	4.8%	3.8%	-	6.0%	2.9%	3.4%	4.9%	4.8%
		c		C													
Ortho Ground Clear	26	6	3	7	10	21	1	2	2	20	6	0	3	5	6	5	7
	5.6%	6.7%	2.9%	4.1%	10.4%	5.5%	4.5%	5.9%	9.1%	6.0%	5.8%	-	3.6%	4.9%	6.8%	4.9%	8.3%
					CD												
Ortho Max Poison Ivy & Tough Brush	22	7	3	7	5	19	2	0	1	15	5	2	5	3	7	1	6
	4.8%	7.8%	2.9%	4.1%	5.2%	5.0%	9.1%	-	4.5%	4.5%	4.8%	8.3%	6.0%	2.9%	8.0%	1.0%	7.1%
													p		P		P

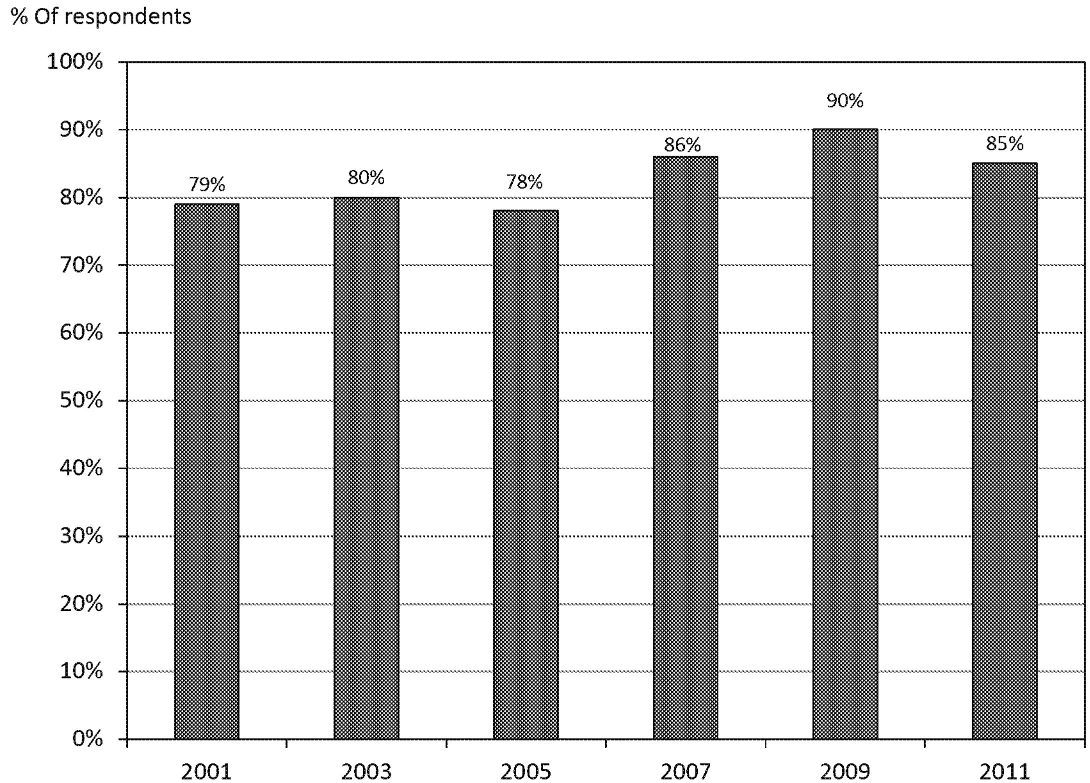
(Continued)

Table 4B-2. Garden and Non-Selective Herbicides (Weed Killer) - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Preen (Net)	40	12	17	8	3	33	4	1	2	27	12	1	4	12	8	7	9
	8.7%	13.3%	16.2%	4.7%	3.1%	8.6%	18.2%	2.9%	9.1%	8.1%	11.5%	4.2%	4.8%	11.7%	9.1%	6.9%	10.7%
		DE	DE											m			
Preen Weed Preventer for Southern Gardens	11	6	1	4	0	7	3	1	0	9	2	0	2	4	2	0	3
	2.4%	6.7%	1.0%	2.4%	-	1.8%	13.6%	2.9%	-	2.7%	1.9%	-	2.4%	3.9%	2.3%	-	3.6%
		CdE												P			p
Preen Garden Weed Preventer	34	9	17	5	3	29	3	0	2	21	12	1	3	8	8	7	8
	7.4%	10.0%	16.2%	2.9%	3.1%	7.6%	13.6%	-	9.1%	6.3%	11.5%	4.2%	3.6%	7.8%	9.1%	6.9%	9.5%
		De	DE			h					j						
Roundup (Net)	248	39	60	94	55	217	7	12	12	174	60	14	48	54	44	58	44
	53.8%	43.3%	57.1%	55.3%	57.3%	56.7%	31.8%	35.3%	54.5%	52.3%	57.7%	58.3%	57.1%	52.4%	50.0%	56.9%	52.4%
			b	b	b	H											
Roundup Weed & Grass	227	34	55	85	53	201	5	11	10	159	57	11	41	50	40	57	39
	49.2%	37.8%	52.4%	50.0%	55.2%	52.5%	22.7%	32.4%	45.5%	47.7%	54.8%	45.8%	48.8%	48.5%	45.5%	55.9%	46.4%
			B	b	B	H											
Roundup Poison Ivy	27	9	2	14	2	22	2	1	2	19	5	3	8	5	3	5	6
	5.9%	10.0%	1.9%	8.2%	2.1%	5.7%	9.1%	2.9%	9.1%	5.7%	4.8%	12.5%	9.5%	4.9%	3.4%	4.9%	7.1%
		CE		CE													
Roundup OTHER (Please Specify)	6	1	3	1	1	6	0	0	0	5	1	0	0	2	2	0	2
	1.3%	1.1%	2.9%	0.6%	1.0%	1.6%	-	-	-	1.5%	1.0%	-	-	1.9%	2.3%	-	2.4%
Spectracide Weed & Grass Killer	47	7	5	24	11	40	2	2	3	33	11	3	7	8	11	11	10
	10.2%	7.8%	4.8%	14.1%	11.5%	10.4%	9.1%	5.9%	13.6%	9.9%	10.6%	12.5%	8.3%	7.8%	12.5%	10.8%	11.9%
				C	c												
Walmart Eliminator Weed & Grass Killer	28	4	6	10	8	20	3	3	2	18	8	2	6	9	7	3	3
	6.1%	4.4%	5.7%	5.9%	8.3%	5.2%	13.6%	8.8%	9.1%	5.4%	7.7%	8.3%	7.1%	8.7%	8.0%	2.9%	3.6%
														p			
Other	9	1	3	4	1	7	1	0	1	8	1	0	2	4	2	0	1
	2.0%	1.1%	2.9%	2.4%	1.0%	1.8%	4.5%	-	4.5%	2.4%	1.0%	-	2.4%	3.9%	2.3%	-	1.2%
														P			
Sigma	750	171	151	274	154	584	77	53	36	547	173	30	131	158	154	127	180
	162.7%	190.0%	143.8%	161.2%	160.4%	152.5%	350.0%	155.9%	163.6%	164.3%	166.3%	125.0%	156.0%	153.4%	175.0%	124.5%	214.3%

Kline

Figure 4B-2: Percentage of Purchasers Who Recall the Last Brand of Garden or Nonselective Herbicide they Purchased, 2001 to 2011



PRODUCT FORM

As with lawn herbicides, garden/nonselective herbicides are most commonly purchased as liquid concentrates, accounting for 36% of the responses, a decrease from 41% in 2009. Ready-to-use liquids with an applicator rank a close second in popularity, with 36% of the responses. This is a decrease from 38% in 2009. Respondents who purchase liquid concentrate products were more likely to be in the West and Midwest than in the Northeast and South.

Table 4B-3: Garden And Non-Selective Herbicides (Weed Killer) - What Form Was The Product? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	543	105	125	206	107	448	28**	43*	24**	395	121	27**	103	124	98*	120	98*
Don't know	28	5	5	13	5	23	2	2	1	22	5	1	13	5	1	3	6
	5.2%	4.8%	4.0%	6.3%	4.7%	5.1%	7.1%	4.7%	4.2%	5.6%	4.1%	3.7%	12.6%	4.0%	1.0%	2.5%	6.1%
													NOP				o
Total answering	515	100	120	193	102	425	26**	41*	23**	373	116	26**	90*	119	97*	117	92*
Aerosol spray	63	21	13	21	8	46	7	9	1	48	12	3	14	12	10	14	13
	12.2%	21.0%	10.8%	10.9%	7.8%	10.8%	26.9%	22.0%	4.3%	12.9%	10.3%	11.5%	15.6%	10.1%	10.3%	12.0%	14.1%
		CDE						F									
Dust	47	8	9	23	7	34	7	2	4	33	10	4	9	13	3	9	13
	9.1%	8.0%	7.5%	11.9%	6.9%	8.0%	26.9%	4.9%	17.4%	8.8%	8.6%	15.4%	10.0%	10.9%	3.1%	7.7%	14.1%
													o	O			O
Granules	110	24	20	52	14	83	10	11	6	98	10	2	18	28	19	21	24
	21.4%	24.0%	16.7%	26.9%	13.7%	19.5%	38.5%	26.8%	26.1%	26.3%	8.6%	7.7%	20.0%	23.5%	19.6%	17.9%	26.1%
		e		CE						K							
Liquid concentrate	186	34	44	60	48	151	15	12	8	120	55	11	28	44	35	41	38
	36.1%	34.0%	36.7%	31.1%	47.1%	35.5%	57.7%	29.3%	34.8%	32.2%	47.4%	42.3%	31.1%	37.0%	36.1%	35.0%	41.3%
					bD						J						
Ready-to-use (RTU) liquid with applicator	185	37	48	62	38	161	6	12	6	139	40	6	31	41	39	42	32
	35.9%	37.0%	40.0%	32.1%	37.3%	37.9%	23.1%	29.3%	26.1%	37.3%	34.5%	23.1%	34.4%	34.5%	40.2%	35.9%	34.8%
RTU liquid without applicator	33	8	6	14	5	22	3	6	2	25	6	2	5	7	8	4	9
	6.4%	8.0%	5.0%	7.3%	4.9%	5.2%	11.5%	14.6%	8.7%	6.7%	5.2%	7.7%	5.6%	5.9%	8.2%	3.4%	9.8%
								F									p
Water soluble powder	13	0	3	8	2	11	0	2	0	11	2	0	1	3	3	3	3
	2.5%	-	2.5%	4.1%	2.0%	2.6%	-	4.9%	-	2.9%	1.7%	-	1.1%	2.5%	3.1%	2.6%	3.3%
				B													
Other	3	0	0	2	1	1	1	0	1	2	1	0	1	2	0	0	0
	0.6%	-	-	1.0%	1.0%	0.2%	3.8%	-	4.3%	0.5%	0.9%	-	1.1%	1.7%	-	-	-
Sigma	640	132	143	242	123	509	49	54	28	476	136	28	107	150	117	134	132
	124.3%	132.0%	119.2%	125.4%	120.6%	119.8%	188.5%	131.7%	121.7%	127.6%	117.2%	107.7%	118.9%	126.1%	120.6%	114.5%	143.5%

RETAIL OUTLET

Forty-two percent of the respondents report purchasing their garden/nonselective herbicide products at home improvement centers. Discount or mass merchandise centers dropped from 36% in 2007 to 29% in 2011. Respondents in Midwest were less likely to purchase their garden and nonselective herbicides at home improvement centers than those in other regions. Urban respondents are the most frequent purchasers of garden/nonselective products at home improvement centers in 2011, while rural respondents were much more likely to purchase from discount or mass merchandisers. Lawn and garden center purchases account for 7% of the responses in 2011, followed by hardware stores and farm supply stores with 7.4% and 3.9%, respectively. Respondents with higher income levels are more likely to purchase garden/nonselective herbicides from home improvement centers, while those with lower income levels tend to purchase more from discount or mass-merchandise stores.

PRODUCT USAGE

Assorted dandelions, crabgrass, and broadleaf weeds are identified most frequently as the weeds treated with garden/nonselective herbicides, accounting for 50%, 46%, and 31% of the responses, respectively. Dandelions are more prevalent in the Midwest and less so in the South. Respondents often are treating for more than one problem when using a garden/nonselective herbicide.

Table 4B-4: Garden and Non-Selective Herbicides (Weed Killer) - Place Product Purchased Most Often? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	543	105	125	206	107	448	28**	43*	24**	395	121	27**	103	124	98*	120	98*
Don't know	31	7	7	13	4	25	1	2	3	24	7	0	8	10	4	4	5
	5.7%	6.7%	5.6%	6.3%	3.7%	5.6%	3.6%	4.7%	12.5%	6.1%	5.8%	-	7.8%	8.1%	4.1%	3.3%	5.1%
Total answering	512	98*	118	193	103	423	27**	41*	21**	371	114	27**	95*	114	94*	116	93*
Discount/mass merchandise store (e.g. Walmart, Kmart)	149	22	37	65	25	123	4	15	7	99	36	14	36	45	24	29	15
	29.1%	22.4%	31.4%	33.7%	24.3%	29.1%	14.8%	36.6%	33.3%	26.7%	31.6%	51.9%	37.9%	39.5%	25.5%	25.0%	16.1%
				Be									oPQ	OPQ			
Lawn and garden center/nursery	38	12	9	12	5	27	4	6	1	32	6	0	5	8	8	10	7
	7.4%	12.2%	7.6%	6.2%	4.9%	6.4%	14.8%	14.6%	4.8%	8.6%	5.3%	-	5.3%	7.0%	8.5%	8.6%	7.5%
		de						f									
Supermarket/grocery store	22	3	2	9	8	13	3	6	0	18	3	1	4	2	2	7	7
	4.3%	3.1%	1.7%	4.7%	7.8%	3.1%	11.1%	14.6%	-	4.9%	2.6%	3.7%	4.2%	1.8%	2.1%	6.0%	7.5%
					C			F								n	No
Home improvement center (e.g. Home Depot, Lowes)	215	43	45	81	46	187	7	10	11	164	43	8	28	38	41	61	47
	42.0%	43.9%	38.1%	42.0%	44.7%	44.2%	25.9%	24.4%	52.4%	44.2%	37.7%	29.6%	29.5%	33.3%	43.6%	52.6%	50.5%
						H									M	MN	MN
Hardware store (e.g. True Value)	38	10	9	11	8	28	7	3	0	27	8	3	8	9	8	4	9
	7.4%	10.2%	7.6%	5.7%	7.8%	6.6%	25.9%	7.3%	-	7.3%	7.0%	11.1%	8.4%	7.9%	8.5%	3.4%	9.7%
																	p
Farm supply store	20	2	10	5	3	20	0	0	0	8	11	1	7	5	4	3	1
	3.9%	2.0%	8.5%	2.6%	2.9%	4.7%	-	-	-	2.2%	9.6%	3.7%	7.4%	4.4%	4.3%	2.6%	1.1%
			BDe								J		Q				
Mail order/catalog	6	2	2	1	1	4	1	0	1	3	3	0	2	3	0	1	0
	1.2%	2.0%	1.7%	0.5%	1.0%	0.9%	3.7%	-	4.8%	0.8%	2.6%	-	2.1%	2.6%	-	0.9%	-
Warehouse/wholesale club	13	3	2	4	4	13	0	0	0	9	4	0	2	2	2	1	6
	2.5%	3.1%	1.7%	2.1%	3.9%	3.1%	-	-	-	2.4%	3.5%	-	2.1%	1.8%	2.1%	0.9%	6.5%
																	nP
Other	11	1	2	5	3	8	1	1	1	11	0	0	3	2	5	0	1
	2.1%	1.0%	1.7%	2.6%	2.9%	1.9%	3.7%	2.4%	4.8%	3.0%	-	-	3.2%	1.8%	5.3%	-	1.1%
										k			p		P		
Sigma	512	98	118	193	103	423	27	41	21	371	114	27	95	114	94	116	93
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 4B-5: Garden and Non-Selective Herbicides (Weed Killer) - What Weeds Or Plants Were A Problem? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	543	105	125	206	107	448	28**	43*	24**	395	121	27**	103	124	98*	120	98*
Total answering	543	105	125	206	107	448	28**	43*	24**	395	121	27**	103	124	98*	120	98*
Bermuda grass	60	10	9	24	17	47	5	5	3	48	12	0	11	12	11	14	12
	11.0%	9.5%	7.2%	11.7%	15.9%	10.5%	17.9%	11.6%	12.5%	12.2%	9.9%	-	10.7%	9.7%	11.2%	11.7%	12.2%
					C												
Brush	48	13	9	15	11	40	4	4	0	35	9	4	6	13	10	7	12
	8.8%	12.4%	7.2%	7.3%	10.3%	8.9%	14.3%	9.3%	-	8.9%	7.4%	14.8%	5.8%	10.5%	10.2%	5.8%	12.2%
																	p
Chick weed	88	22	16	37	13	69	8	9	2	68	16	4	12	19	15	16	26
	16.2%	21.0%	12.8%	18.0%	12.1%	15.4%	28.6%	20.9%	8.3%	17.2%	13.2%	14.8%	11.7%	15.3%	15.3%	13.3%	26.5%
		ce															MNoP
Crabgrass	247	53	58	87	49	203	15	17	12	189	48	10	44	57	47	53	46
	45.5%	50.5%	46.4%	42.2%	45.8%	45.3%	53.6%	39.5%	50.0%	47.8%	39.7%	37.0%	42.7%	46.0%	48.0%	44.2%	46.9%
Dandelions	269	56	79	84	50	221	16	20	12	196	60	13	47	60	56	59	47
	49.5%	53.3%	63.2%	40.8%	46.7%	49.3%	57.1%	46.5%	50.0%	49.6%	49.6%	48.1%	45.6%	48.4%	57.1%	49.2%	48.0%
		D	DE														
Ivy, vines	106	23	24	38	21	89	7	6	4	62	36	8	30	21	20	20	15
	19.5%	21.9%	19.2%	18.4%	19.6%	19.9%	25.0%	14.0%	16.7%	15.7%	29.8%	29.6%	29.1%	16.9%	20.4%	16.7%	15.3%
											J		NPQ				
Onions	44	8	6	25	5	35	3	3	3	35	7	2	10	11	8	8	7
	8.1%	7.6%	4.8%	12.1%	4.7%	7.8%	10.7%	7.0%	12.5%	8.9%	5.8%	7.4%	9.7%	8.9%	8.2%	6.7%	7.1%
				CE													
Plantain	26	7	4	11	4	20	3	3	0	18	6	2	2	9	4	6	5
	4.8%	6.7%	3.2%	5.3%	3.7%	4.5%	10.7%	7.0%	-	4.6%	5.0%	7.4%	1.9%	7.3%	4.1%	5.0%	5.1%
														m			
Thistles	80	10	23	30	17	67	3	5	5	54	22	4	15	17	18	13	17
	14.7%	9.5%	18.4%	14.6%	15.9%	15.0%	10.7%	11.6%	20.8%	13.7%	18.2%	14.8%	14.6%	13.7%	18.4%	10.8%	17.3%
			b														
Assorted broadleaf weeds	168	27	43	66	32	154	5	5	4	128	36	4	23	38	34	43	30
	30.9%	25.7%	34.4%	32.0%	29.9%	34.4%	17.9%	11.6%	16.7%	32.4%	29.8%	14.8%	22.3%	30.6%	34.7%	35.8%	30.6%
						H									m	M	
Assorted grasses	137	18	30	62	27	114	5	8	10	91	40	6	24	28	26	36	23
	25.2%	17.1%	24.0%	30.1%	25.2%	25.4%	17.9%	18.6%	41.7%	23.0%	33.1%	22.2%	23.3%	22.6%	26.5%	30.0%	23.5%
				B							J						
Assorted woody plants	29	5	7	13	4	27	0	1	1	20	7	2	5	9	4	7	4
	5.3%	4.8%	5.6%	6.3%	3.7%	6.0%	-	2.3%	4.2%	5.1%	5.8%	7.4%	4.9%	7.3%	4.1%	5.8%	4.1%
Other	30	5	3	15	7	27	1	2	0	17	11	2	7	4	7	9	3
	5.5%	4.8%	2.4%	7.3%	6.5%	6.0%	3.6%	4.7%	-	4.3%	9.1%	7.4%	6.8%	3.2%	7.1%	7.5%	3.1%
Sigma	1,332	257	311	507	257	1,113	75	88	56	961	310	61	236	298	260	291	247
	245.3%	244.8%	248.8%	246.1%	240.2%	248.4%	267.9%	204.7%	233.3%	243.3%	256.2%	225.9%	229.1%	240.3%	265.3%	242.5%	252.0%

5A. LAWN AND GARDEN INSECTICIDES

OVERVIEW

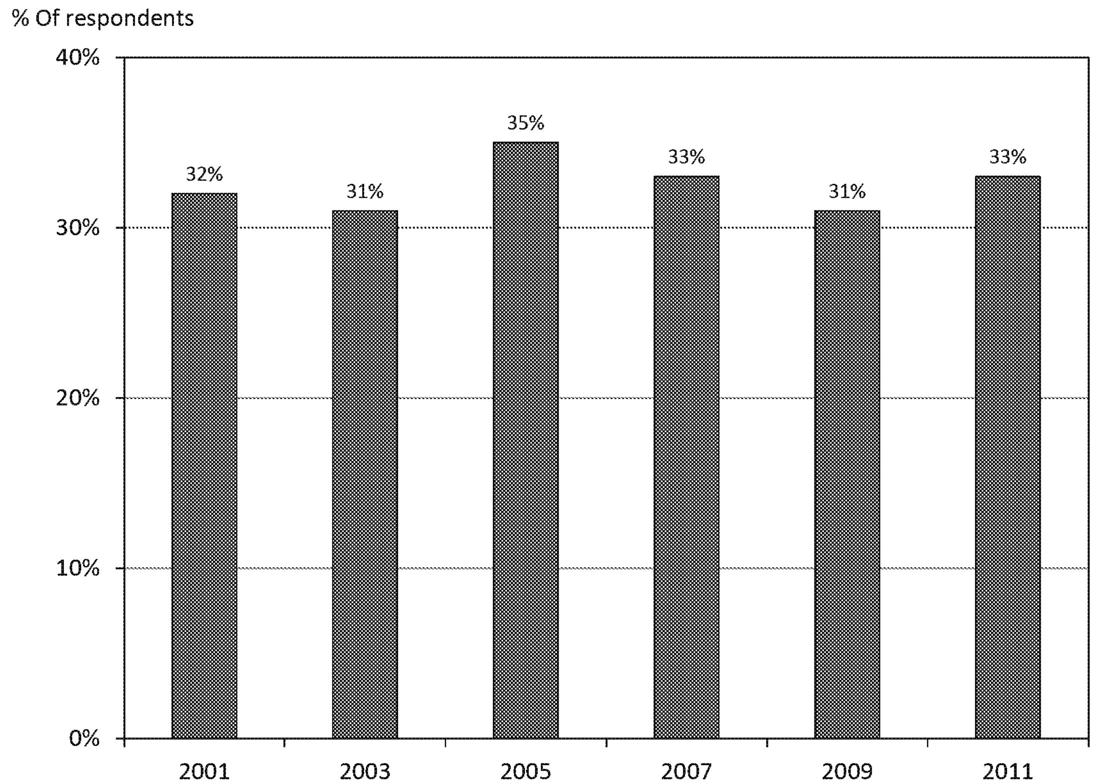
Thirty-three percent of the respondents report purchasing lawn and garden insecticide products during the 2011 season, an increase from 31% in 2009. In 2011, 53% of the respondents indicate that they do not use lawn and garden insecticides.

Table 5A-1: Lawn or Garden Insecticides - When Last Bought?

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Base: Total Respondents	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
Total answering	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
One year ago or less (net)	508	89	108	230	81	409	26	43	30	370	109	29	102	126	104	85	91
	32.7%	29.3%	29.4%	41.9%	24.4%	34.9%	32.5%	20.0%	35.7%	32.6%	35.5%	26.6%	27.0%	30.6%	38.2%	34.4%	37.4%
				BCE		H	H		H		I				MN	M	Mn
Less than 6 months ago	198	35	42	90	31	160	10	16	12	141	43	14	35	50	48	36	29
	12.8%	11.5%	11.4%	16.4%	9.3%	13.6%	12.5%	7.4%	14.3%	12.4%	14.0%	12.8%	9.3%	12.1%	17.6%	14.6%	11.9%
				bCE		H			h						MNq	M	
6 months to 1 year ago	310	54	66	140	50	249	16	27	18	229	66	15	67	76	56	49	62
	20.0%	17.8%	18.0%	25.5%	15.1%	21.2%	20.0%	12.6%	21.4%	20.2%	21.5%	13.8%	17.7%	18.4%	20.6%	19.8%	25.5%
				BCE		H			h		I						MN
More than 1 year ago	226	42	47	82	55	182	13	23	8	178	32	16	45	58	41	42	40
	14.6%	13.8%	12.8%	14.9%	16.6%	15.5%	16.3%	10.7%	9.5%	15.7%	10.4%	14.7%	11.9%	14.1%	15.1%	17.0%	16.5%
						h				K						m	
Do not use product	818	173	212	237	196	582	41	149	46	588	166	64	231	228	127	120	112
	52.7%	56.9%	57.8%	43.2%	59.0%	49.6%	51.3%	69.3%	54.8%	51.8%	54.1%	58.7%	61.1%	55.3%	46.7%	48.6%	46.1%
		D	D		D			FGI					OPQ	OpQ			
Sigma	1,552	304	367	549	332	1,173	80	215	84	1,136	307	109	378	412	272	247	243
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Kline

Figure 5A-1: Percentage of Respondents Who Purchased Lawn and Garden Insecticides During the Last 12 Months, 2001 to 2011



GEOGRAPHIC REGION

Purchase incidence of lawn and garden insecticides is highest in the South, with 42% reporting using them, and lowest in the Northeast and West, where only 29% and 24%, respectively, use them, reflecting differences in climate and insect problems.

POPULATION DENSITY

Lawn and garden insecticide purchase incidence is slightly higher among suburban respondents, with 36% reporting use, as compared with 27% in rural and 33% in urban areas.

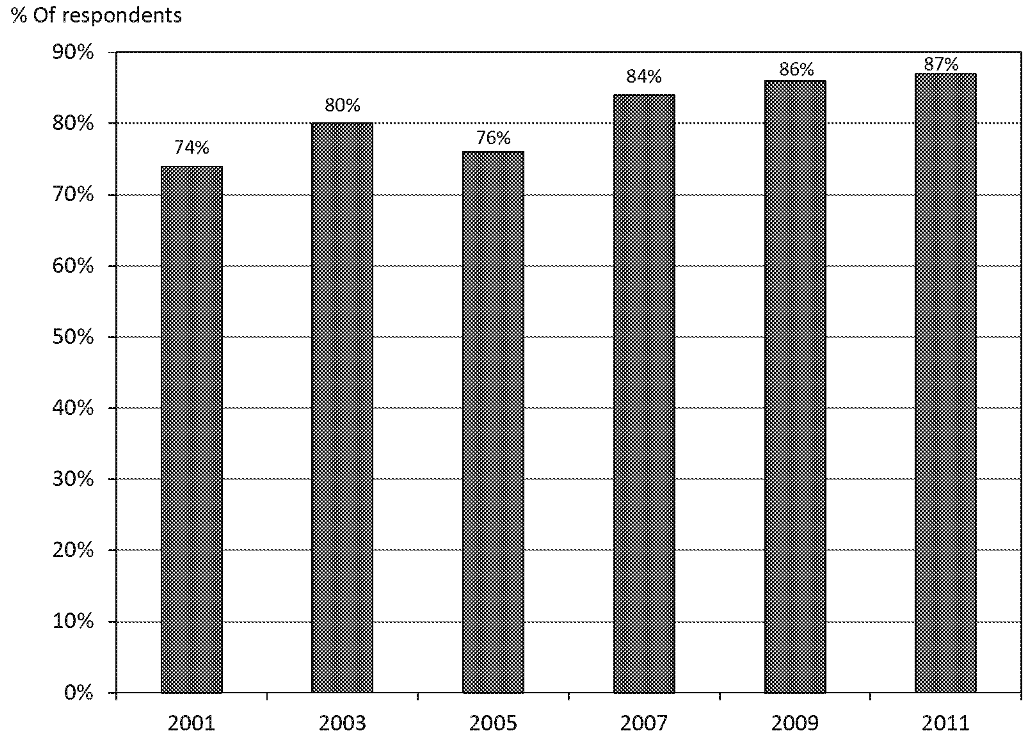
FAMILY INCOME

Among respondents in 2011, the propensity to purchase lawn and garden insecticides is not significantly affected by income, although there is only a slight difference, with the lowest income level having a purchase incidence of 27% and the highest two income levels having a purchase incidence of 34% and 37%.

BRAND RECOLLECTION

Ortho was the most frequently purchased brand of lawn and garden insecticide in 2011, with all of their sub brands accounting for 40% of the responses, a decrease from 58% in 2009. Ortho responses are broken down as follows: 19% for Ortho Lawn and Garden Insect Killer and 11% for Ortho Bug-B-Gon Max Insect Killer for Lawns. Ortho Home Defense Max was reported by 9% of respondents, followed by Ortho Fire Ant Killer at 5% of respondents, Ortho Ant-B-Gone with 5%, and Ortho Bug Geta with 2% of respondents. Ortho is purchased fairly evenly across all regions and by all income levels. Respondents in rural areas were less likely to purchase Ortho products than those in urban and suburban areas. Brand recollection of other brands of lawn and garden insecticides includes Bayer with 23% of responses, Amdro products with 16%, and Raid House & Garden Spray with 12%.

Figure 5A-2: Percentage of Purchasers Who Recall the Last Brand of Lawn and Garden Insecticide they Purchased, 2001 to 2011



PRODUCT FORM

Granular products are the most commonly purchased forms of lawn and garden insecticides in 2011, accounting for 35% of the responses. For granular products, this is a slight increase from 34% in 2009. Ready-to-use RTUs with trigger sprayers rank second with 25% of respondents. Liquid concentrate was the product form of choice by 24% of respondents in 2011. Respondents from the South and Midwest report the greatest propensity to purchase granular products, while aerosols are purchased most often in the West. The use of the granular product form was highest for families with an income between $50,000 and $75,000 and lowest for families with an income between $75,000 and $100,000 who prefer RTU with trigger spray.

Table 5A-2: Lawn or Garden Insecticides - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	508	89*	108	230	81*	409	26**	43*	30*	370	109	29**	102	126	104	85*	91*
Don't know	65	9	17	28	11	53	2	6	4	53	10	2	18	14	13	10	10
	12.8%	10.1%	15.7%	12.2%	13.6%	13.0%	7.7%	14.0%	13.3%	14.3%	9.2%	6.9%	17.6%	11.1%	12.5%	11.8%	11.0%
No answer	1	0	0	0	1	1	0	0	0	1	0	0	0	1	0	0	0
	0.2%	-	-	-	1.2%	0.2%	-	-	-	0.3%	-	-	-	0.8%	-	-	-
					d												
Total answering	442	80*	91*	202	69*	355	24**	37*	26**	316	99*	27**	84*	111	91*	75*	81*
Amdro (Net)	71	7	4	52	8	56	6	3	6	50	18	3	9	20	15	13	14
	16.1%	8.8%	4.4%	25.7%	11.6%	15.8%	25.0%	8.1%	23.1%	15.8%	18.2%	11.1%	10.7%	18.0%	16.5%	17.3%	17.3%
				BCE	c												
Amdro Fire Ant	53	4	2	44	3	42	5	1	5	37	13	3	7	16	11	9	10
	12.0%	5.0%	2.2%	21.8%	4.3%	11.8%	20.8%	2.7%	19.2%	11.7%	13.1%	11.1%	8.3%	14.4%	12.1%	12.0%	12.3%
				BCE		h											
Amdro Ant	28	6	2	13	7	22	3	2	1	19	9	0	3	6	7	5	7
	6.3%	7.5%	2.2%	6.4%	10.1%	6.2%	12.5%	5.4%	3.8%	6.0%	9.1%	-	3.6%	5.4%	7.7%	6.7%	8.6%
					C												
Bayer (Net)	103	16	20	44	23	77	11	12	3	75	27	1	17	23	22	12	29
	23.3%	20.0%	22.0%	21.8%	33.3%	21.7%	45.8%	32.4%	11.5%	23.7%	27.3%	3.7%	20.2%	20.7%	24.2%	16.0%	35.8%
					bd												MNoP
Bayer Advanced Complete	51	8	9	25	9	41	4	3	3	35	15	1	13	13	9	5	11
	11.5%	10.0%	9.9%	12.4%	13.0%	11.5%	16.7%	8.1%	11.5%	11.1%	15.2%	3.7%	15.5%	11.7%	9.9%	6.7%	13.6%
													p				
Bayer Advanced Season Long Grub Control	21	4	3	12	2	16	1	4	0	17	4	0	1	6	5	3	6
	4.8%	5.0%	3.3%	5.9%	2.9%	4.5%	4.2%	10.8%	-	5.4%	4.0%	-	1.2%	5.4%	5.5%	4.0%	7.4%
								f									M
Bayer Advanced Natria	17	3	1	6	7	10	2	5	0	13	4	0	1	2	5	4	5
	3.8%	3.8%	1.1%	3.0%	10.1%	2.8%	8.3%	13.5%	-	4.1%	4.0%	-	1.2%	1.8%	5.5%	5.3%	6.2%
					CD			F									m
Bayer Advanced Vegetable and Garden Insect	24	3	6	10	5	18	4	2	0	17	7	0	2	4	6	2	10
	5.4%	3.8%	6.6%	5.0%	7.2%	5.1%	16.7%	5.4%	-	5.4%	7.1%	-	2.4%	3.6%	6.6%	2.7%	12.3%
																	MNP

(Continued)

Kline

Table 5A-2: Lawn or Garden Insecticides - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Bayer Advanced Tree and Shrub Protect	19	5	2	8	4	13	3	2	1	17	2	0	1	7	3	1	7
	4.3%	6.3%	2.2%	4.0%	5.8%	3.7%	12.5%	5.4%	3.8%	5.4%	2.0%	-	1.2%	6.3%	3.3%	1.3%	8.6%
														m			MP
Bengal	5	0	0	2	3	4	0	0	1	5	0	0	2	0	0	1	2
	1.1%	-	-	1.0%	4.3%	1.1%	-	-	3.8%	1.6%	-	-	2.4%	-	-	1.3%	2.5%
					bCd												n
Bonide (Net)	16	5	4	4	3	13	2	1	0	13	3	0	1	3	2	2	8
	3.6%	6.3%	4.4%	2.0%	4.3%	3.7%	8.3%	2.7%	-	4.1%	3.0%	-	1.2%	2.7%	2.2%	2.7%	9.9%
		d															MNOp
Bonide Eight	8	2	2	2	2	6	1	1	0	7	1	0	1	1	2	1	3
	1.8%	2.5%	2.2%	1.0%	2.9%	1.7%	4.2%	2.7%	-	2.2%	1.0%	-	1.2%	0.9%	2.2%	1.3%	3.7%
Bonide Grub Beater	8	3	1	2	2	7	1	0	0	7	1	0	0	0	2	1	5
	1.8%	3.8%	1.1%	1.0%	2.9%	2.0%	4.2%	-	-	2.2%	1.0%	-	-	-	2.2%	1.3%	6.2%
																	MN
Bonide Systemic Insect	2	1	1	0	0	2	0	0	0	1	1	0	0	2	0	0	0
	0.5%	1.3%	1.1%	-	-	0.6%	-	-	-	0.3%	1.0%	-	-	1.8%	-	-	-
Eliminator (Net)	55	6	11	35	3	41	5	4	5	29	18	8	12	16	13	3	11
	12.4%	7.5%	12.1%	17.3%	4.3%	11.5%	20.8%	10.8%	19.2%	9.2%	18.2%	29.6%	14.3%	14.4%	14.3%	4.0%	13.6%
			e	BE							J		P	P	P		P
Eliminator Sevin Dust	37	4	7	23	3	26	3	3	5	20	12	5	9	11	9	1	7
	8.4%	5.0%	7.7%	11.4%	4.3%	7.3%	12.5%	8.1%	19.2%	6.3%	12.1%	18.5%	10.7%	9.9%	9.9%	1.3%	8.6%
				e							j		P	P	P		P
Eliminator Ant Flea & Tick Granules	14	1	1	11	1	11	2	0	1	8	4	2	3	4	4	1	2
	3.2%	1.3%	1.1%	5.4%	1.4%	3.1%	8.3%	-	3.8%	2.5%	4.0%	7.4%	3.6%	3.6%	4.4%	1.3%	2.5%
				c													
Eliminator Fire Ant Granules	13	2	1	8	2	9	1	2	1	8	5	0	6	2	1	1	3
	2.9%	2.5%	1.1%	4.0%	2.9%	2.5%	4.2%	5.4%	3.8%	2.5%	5.1%	-	7.1%	1.8%	1.1%	1.3%	3.7%
													nOp				
Eliminator Slug & Snail Bait	7	0	2	4	1	5	1	0	1	5	0	2	1	1	3	0	2
	1.6%	-	2.2%	2.0%	1.4%	1.4%	4.2%	-	3.8%	1.6%	-	7.4%	1.2%	0.9%	3.3%	-	2.5%

(Continued)

Table 5A-2: Lawn or Garden Insecticides - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Enforcer (Net)	13	4	1	8	0	7	4	0	2	8	3	2	3	4	3	0	3
	2.9%	5.0%	1.1%	4.0%	-	2.0%	16.7%	-	7.7%	2.5%	3.0%	7.4%	3.6%	3.6%	3.3%	-	3.7%
		e		e										p			p
Enforcer Outdoor Insect Killer	9	3	1	5	0	5	3	0	1	6	2	1	2	3	2	0	2
	2.0%	3.8%	1.1%	2.5%	-	1.4%	12.5%	-	3.8%	1.9%	2.0%	3.7%	2.4%	2.7%	2.2%	-	2.5%
Enforcer BugMax Insect Killer	6	2	0	4	0	3	2	0	1	3	2	1	1	1	2	0	2
	1.4%	2.5%	-	2.0%	-	0.8%	8.3%	-	3.8%	0.9%	2.0%	3.7%	1.2%	0.9%	2.2%	-	2.5%
Fortify	6	1	1	2	2	6	0	0	0	5	0	1	2	1	1	2	0
	1.4%	1.3%	1.1%	1.0%	2.9%	1.7%	-	-	-	1.6%	-	3.7%	2.4%	0.9%	1.1%	2.7%	-
Garden Tech Sevin	11	1	4	6	0	6	1	2	2	9	2	0	1	5	2	1	2
	2.5%	1.3%	4.4%	3.0%	-	1.7%	4.2%	5.4%	7.7%	2.8%	2.0%	-	1.2%	4.5%	2.2%	1.3%	2.5%
			e														
Garden Safe (Net)	15	3	3	6	3	10	3	1	1	9	4	2	4	1	4	1	5
	3.4%	3.8%	3.3%	3.0%	4.3%	2.8%	12.5%	2.7%	3.8%	2.8%	4.0%	7.4%	4.8%	0.9%	4.4%	1.3%	6.2%
													n				N
Garden Safe Fruit and Vegetable Insect	11	3	1	4	3	7	3	0	1	6	3	2	3	0	4	1	3
	2.5%	3.8%	1.1%	2.0%	4.3%	2.0%	12.5%	-	3.8%	1.9%	3.0%	7.4%	3.6%	-	4.4%	1.3%	3.7%
													N		N		N
Garden Safe Multipurpose Insect Killer	10	1	3	4	2	6	2	1	1	6	3	1	2	1	3	0	4
	2.3%	1.3%	3.3%	2.0%	2.9%	1.7%	8.3%	2.7%	3.8%	1.9%	3.0%	3.7%	2.4%	0.9%	3.3%	-	4.9%
																	np
Green Light (Net)	17	6	1	6	4	15	2	0	0	14	3	0	1	5	2	2	7
	3.8%	7.5%	1.1%	3.0%	5.8%	4.2%	8.3%	-	-	4.4%	3.0%	-	1.2%	4.5%	2.2%	2.7%	8.6%
		Cd			c												Mo
Green Light Lawn & Garden	6	2	0	4	0	6	0	0	0	4	2	0	0	2	1	1	2
	1.4%	2.5%	-	2.0%	-	1.7%	-	-	-	1.3%	2.0%	-	-	1.8%	1.1%	1.3%	2.5%
Green Light Lawn & Garden Spray Spinosad	2	0	1	1	0	2	0	0	0	0	2	0	1	0	1	0	0
	0.5%	-	1.1%	0.5%	-	0.6%	-	-	-	-	2.0%	-	1.2%	-	1.1%	-	-
											J						
Green Light Lawn Insect Killer	9	4	0	3	2	8	1	0	0	8	1	0	0	3	1	1	4
	2.0%	5.0%	-	1.5%	2.9%	2.3%	4.2%	-	-	2.5%	1.0%	-	-	2.7%	1.1%	1.3%	4.9%
		Cd															M

(Continued)

Table 5A-2: Lawn or Garden Insecticides - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Green Light Tree & Shrub	4	0	0	2	2	3	1	0	0	3	1	0	0	0	2	0	2
	0.9%	-	-	1.0%	2.9%	0.8%	4.2%	-	-	0.9%	1.0%	-	-	-	2.2%	-	2.5%
																	n
Hi-Yield	6	2	0	1	3	5	0	1	0	6	0	0	1	1	1	2	1
	1.4%	2.5%	-	0.5%	4.3%	1.4%	-	2.7%	-	1.9%	-	-	1.2%	0.9%	1.1%	2.7%	1.2%
					CD												
Ortho (Net)	177	30	41	77	29	145	7	14	11	133	35	9	32	45	33	36	31
	40.0%	37.5%	45.1%	38.1%	42.0%	40.8%	29.2%	37.8%	42.3%	42.1%	35.4%	33.3%	38.1%	40.5%	36.3%	48.0%	38.3%
Ortho Lawn and Garden Insect Killer	84	11	25	30	18	65	6	8	5	60	18	6	18	25	14	10	17
	19.0%	13.8%	27.5%	14.9%	26.1%	18.3%	25.0%	21.6%	19.2%	19.0%	18.2%	22.2%	21.4%	22.5%	15.4%	13.3%	21.0%
			BD		bD												
Ortho Ant-B-Gon	21	1	3	13	4	16	1	2	2	14	3	4	7	2	6	1	5
	4.8%	1.3%	3.3%	6.4%	5.8%	4.5%	4.2%	5.4%	7.7%	4.4%	3.0%	14.8%	8.3%	1.8%	6.6%	1.3%	6.2%
				b									NP		np		
Ortho Bug-B-Gon Max Insect Killer for Lawns	48	10	10	19	9	40	1	4	3	34	12	2	12	11	6	15	4
	10.9%	12.5%	11.0%	9.4%	13.0%	11.3%	4.2%	10.8%	11.5%	10.8%	12.1%	7.4%	14.3%	9.9%	6.6%	20.0%	4.9%
													oQ			nOQ	
Ortho Bug Geta	7	0	1	2	4	7	0	0	0	5	2	0	1	2	2	0	2
	1.6%	-	1.1%	1.0%	5.8%	2.0%	-	-	-	1.6%	2.0%	-	1.2%	1.8%	2.2%	-	2.5%
					BcD												
Ortho Fire Ant Killer	23	2	0	20	1	17	1	2	3	17	6	0	3	7	4	2	7
	5.2%	2.5%	-	9.9%	1.4%	4.8%	4.2%	5.4%	11.5%	5.4%	6.1%	-	3.6%	6.3%	4.4%	2.7%	8.6%
				BCE													
Ortho Home Defense Max	39	12	10	13	4	36	0	2	1	30	9	0	2	11	9	12	5
	8.8%	15.0%	11.0%	6.4%	5.8%	10.1%	-	5.4%	3.8%	9.5%	9.1%	-	2.4%	9.9%	9.9%	16.0%	6.2%
		De												M	M	Mq	
Scotts Grubex	25	8	7	9	1	23	1	0	1	18	7	0	4	4	10	3	4
	5.7%	10.0%	7.7%	4.5%	1.4%	6.5%	4.2%	-	3.8%	5.7%	7.1%	-	4.8%	3.6%	11.0%	4.0%	4.9%
		dE	e												Np		
Over N Out Fire Ant Killer	5	0	0	5	0	5	0	0	0	3	2	0	1	1	2	0	1
	1.1%	-	-	2.5%	-	1.4%	-	-	-	0.9%	2.0%	-	1.2%	0.9%	2.2%	-	1.2%

(Continued)

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Table 5A-2: Lawn or Garden Insecticides - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Raid House & Garden Spray	53	12	8	26	7	40	4	4	5	38	10	5	15	10	15	6	7
	12.0%	15.0%	8.8%	12.9%	10.1%	11.3%	16.7%	10.8%	19.2%	12.0%	10.1%	18.5%	17.9%	9.0%	16.5%	8.0%	8.6%
													npq				
Spectracide (Net)	51	3	6	34	8	41	1	2	7	38	10	3	8	9	17	7	10
	11.5%	3.8%	6.6%	16.8%	11.6%	11.5%	4.2%	5.4%	26.9%	12.0%	10.1%	11.1%	9.5%	8.1%	18.7%	9.3%	12.3%
				BC	b										mNp		
Spectracide Ant Shield	12	2	2	8	0	10	0	0	2	9	2	1	3	3	3	0	3
	2.7%	2.5%	2.2%	4.0%	-	2.8%	-	-	7.7%	2.8%	2.0%	3.7%	3.6%	2.7%	3.3%	-	3.7%
				e													p
Spectracide Fire Ant Killer	17	0	0	16	1	12	1	1	3	14	3	0	2	4	9	2	0
	3.8%	-	-	7.9%	1.4%	3.4%	4.2%	2.7%	11.5%	4.4%	3.0%	-	2.4%	3.6%	9.9%	2.7%	-
				BCe										q	MnpQ		
Spectracide Triazide Soil & Turf	10	0	1	6	3	8	0	0	2	6	3	1	1	1	5	0	3
	2.3%	-	1.1%	3.0%	4.3%	2.3%	-	-	7.7%	1.9%	3.0%	3.7%	1.2%	0.9%	5.5%	-	3.7%
					b										nP		p
Spectracide Triazide Once and Done Insect Killer	21	1	3	13	4	18	1	1	1	14	6	1	3	3	5	5	5
	4.8%	1.3%	3.3%	6.4%	5.8%	5.1%	4.2%	2.7%	3.8%	4.4%	6.1%	3.7%	3.6%	2.7%	5.5%	6.7%	6.2%
				b													
Other	32	7	10	11	4	26	2	2	2	23	8	1	4	11	7	5	5
	7.2%	8.8%	11.0%	5.4%	5.8%	7.3%	8.3%	5.4%	7.7%	7.3%	8.1%	3.7%	4.8%	9.9%	7.7%	6.7%	6.2%
			d														
Sigma	784	131	131	397	125	612	62	55	55	557	187	40	139	187	184	104	170
	177.4%	163.8%	144.0%	196.5%	181.2%	172.4%	258.3%	148.6%	211.5%	176.3%	188.9%	148.1%	165.5%	168.5%	202.2%	138.7%	209.9%

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Lawn and Garden Insecticides

Table 5A-3: Lawn or Garden Insecticides - What Form Was The Product? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	508	89*	108	230	81*	409	26**	43*	30*	370	109	29**	102	126	104	85*	91*
Don't know	20	4	5	8	3	15	2	2	1	18	2	0	8	5	2	4	1
	3.9%	4.5%	4.6%	3.5%	3.7%	3.7%	7.7%	4.7%	3.3%	4.9%	1.8%	-	7.8%	4.0%	1.9%	4.7%	1.1%
													OQ				
No answer	1	0	0	0	1	1	0	0	0	1	0	0	0	1	0	0	0
	0.2%	-	-	-	1.2%	0.2%	-	-	-	0.3%	-	-	-	0.8%	-	-	-
					d												
Total answering	487	85*	103	222	77*	393	24**	41*	29**	351	107	29**	94*	120	102	81*	90*
Aerosol spray	69	12	14	27	16	50	6	10	3	55	10	4	17	9	21	4	18
	14.2%	14.1%	13.6%	12.2%	20.8%	12.7%	25.0%	24.4%	10.3%	15.7%	9.3%	13.8%	18.1%	7.5%	20.6%	4.9%	20.0%
					d			F					NP		NP		NP
Dust	91	14	19	49	9	68	4	10	9	63	21	7	16	30	19	6	20
	18.7%	16.5%	18.4%	22.1%	11.7%	17.3%	16.7%	24.4%	31.0%	17.9%	19.6%	24.1%	17.0%	25.0%	18.6%	7.4%	22.2%
				E									p	P	P		P
Granules	168	23	31	95	19	136	8	11	13	118	40	10	31	43	41	23	30
	34.5%	27.1%	30.1%	42.8%	24.7%	34.6%	33.3%	26.8%	44.8%	33.6%	37.4%	34.5%	33.0%	35.8%	40.2%	28.4%	33.3%
				BCE											p		
Liquid concentrate	117	22	26	48	21	92	7	11	7	88	26	3	18	26	23	18	32
	24.0%	25.9%	25.2%	21.6%	27.3%	23.4%	29.2%	26.8%	24.1%	25.1%	24.3%	10.3%	19.1%	21.7%	22.5%	22.2%	35.6%
																	MNOp
Ready-to-use (RTU) with trigger spray	123	27	24	53	19	99	11	8	5	92	24	7	26	30	18	28	21
	25.3%	31.8%	23.3%	23.9%	24.7%	25.2%	45.8%	19.5%	17.2%	26.2%	22.4%	24.1%	27.7%	25.0%	17.6%	34.6%	23.3%
													o			O	
RTU liquid with hose sprayer	50	11	12	19	8	42	4	1	3	35	11	4	11	11	10	11	7
	10.3%	12.9%	11.7%	8.6%	10.4%	10.7%	16.7%	2.4%	10.3%	10.0%	10.3%	13.8%	11.7%	9.2%	9.8%	13.6%	7.8%
						h											
Water soluble powder	16	0	3	9	4	14	0	2	0	12	2	2	3	7	2	2	2
	3.3%	-	2.9%	4.1%	5.2%	3.6%	-	4.9%	-	3.4%	1.9%	6.9%	3.2%	5.8%	2.0%	2.5%	2.2%
				b	B												
Other	9	4	2	3	0	6	0	3	0	6	3	0	1	4	2	1	1
	1.8%	4.7%	1.9%	1.4%	-	1.5%	-	7.3%	-	1.7%	2.8%	-	1.1%	3.3%	2.0%	1.2%	1.1%
		de						F									
Sigma	643	113	131	303	96	507	40	56	40	469	137	37	123	160	136	93	131
	132.0%	132.9%	127.2%	136.5%	124.7%	129.0%	166.7%	136.6%	137.9%	133.6%	128.0%	127.6%	130.9%	133.3%	133.3%	114.8%	145.6%

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RETAIL OUTLET

Lawn and garden insecticide products are most often purchased at a home improvement centers, accounting for 41% of the responses. The most frequent purchasers are respondents in the South. Discount or mass marketers rank second with 29%, an increase from 28% in 2009. Lawn and garden centers account for 8% of the responses overall in 2011, same as in 2007, and hardware stores were reported as 5% of respondents, 1% more than in 2007.

PRODUCT USAGE

Various species of ants are the most popular for treatment with lawn and/or garden insecticides, with 53% of respondents reporting them as a problem. This is a slight decrease from 58% in 2009. Fire ants were the second most treated insect as reported by 31% of respondents with 50% of those in the South reporting them as what they treat for. Grubs rank third with 26% responses, followed by fleas, aphids, and Japanese beetles with 23%, 19%, and 17%, respectively, of respondents saying they treat for them.

Table 5A-4: Lawn or Garden Insecticides - Place Product Purchased Most Often? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	508	89*	108	230	81*	409	26**	43*	30*	370	109	29**	102	126	104	85*	91*
Don't know	29	9	5	11	4	24	0	2	3	23	5	1	11	5	8	3	2
	5.7%	10.1%	4.6%	4.8%	4.9%	5.9%	-	4.7%	10.0%	6.2%	4.6%	3.4%	10.8%	4.0%	7.7%	3.5%	2.2%
		d											NpQ		q		
Total answering	479	80*	103	219	77*	385	26**	41*	27**	347	104	28**	91*	121	96*	82*	89*
Discount/mass merchandise store (e.g. Walmart, Kmart)	137	16	33	70	18	107	6	13	11	90	29	18	37	44	18	22	16
	28.6%	20.0%	32.0%	32.0%	23.4%	27.8%	23.1%	31.7%	40.7%	25.9%	27.9%	64.3%	40.7%	36.4%	18.8%	26.8%	18.0%
			b	B									OpQ	OQ			
Lawn and garden center/nursery	40	10	5	17	8	32	3	3	2	32	7	1	4	9	8	10	9
	8.4%	12.5%	4.9%	7.8%	10.4%	8.3%	11.5%	7.3%	7.4%	9.2%	6.7%	3.6%	4.4%	7.4%	8.3%	12.2%	10.1%
		c														m	
Supermarket/grocery store	15	7	1	5	2	8	3	3	1	13	2	0	2	3	4	3	3
	3.1%	8.8%	1.0%	2.3%	2.6%	2.1%	11.5%	7.3%	3.7%	3.7%	1.9%	-	2.2%	2.5%	4.2%	3.7%	3.4%
		CD						F									
Home improvement center (e.g. Home Depot, Lowes)	196	26	44	94	32	165	8	13	10	147	44	5	28	44	48	37	39
	40.9%	32.5%	42.7%	42.9%	41.6%	42.9%	30.8%	31.7%	37.0%	42.4%	42.3%	17.9%	30.8%	36.4%	50.0%	45.1%	43.8%
															MN	m	m
Hardware store (e.g. True Value)	25	7	6	5	7	19	0	6	0	19	4	2	4	7	6	2	6
	5.2%	8.8%	5.8%	2.3%	9.1%	4.9%	-	14.6%	-	5.5%	3.8%	7.1%	4.4%	5.8%	6.3%	2.4%	6.7%
		D			D			F									
Farm supply store	23	3	6	10	4	20	1	1	1	14	7	2	5	8	3	3	4
	4.8%	3.8%	5.8%	4.6%	5.2%	5.2%	3.8%	2.4%	3.7%	4.0%	6.7%	7.1%	5.5%	6.6%	3.1%	3.7%	4.5%
Mail order/catalog	20	7	4	6	3	14	5	0	1	15	5	0	5	3	3	3	6
	4.2%	8.8%	3.9%	2.7%	3.9%	3.6%	19.2%	-	3.7%	4.3%	4.8%	-	5.5%	2.5%	3.1%	3.7%	6.7%
		D															
Warehouse/wholesale club	11	1	2	7	1	11	0	0	0	7	4	0	4	1	2	0	4
	2.3%	1.3%	1.9%	3.2%	1.3%	2.9%	-	-	-	2.0%	3.8%	-	4.4%	0.8%	2.1%	-	4.5%
													np				np
Other	12	3	2	5	2	9	0	2	1	10	2	0	2	2	4	2	2
	2.5%	3.8%	1.9%	2.3%	2.6%	2.3%	-	4.9%	3.7%	2.9%	1.9%	-	2.2%	1.7%	4.2%	2.4%	2.2%
Sigma	479	80	103	219	77	385	26	41	27	347	104	28	91	121	96	82	89
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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Table 5A-5: Lawn or Garden Insecticides - What Pests Were You Trying To Get Rid Of? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	508	89*	108	230	81*	409	26**	43*	30*	370	109	29**	102	126	104	85*	91*
Don't know	19	2	4	9	4	14	2	2	1	18	1	0	4	8	3	4	0
	3.7%	2.2%	3.7%	3.9%	4.9%	3.4%	7.7%	4.7%	3.3%	4.9%	0.9%	-	3.9%	6.3%	2.9%	4.7%	-
										k			q	Q		Q	
No answer	1	0	0	0	1	1	0	0	0	1	0	0	0	1	0	0	0
	0.2%	-	-	-	1.2%	0.2%	-	-	-	0.3%	-	-	-	0.8%	-	-	-
					d												
Total answering	488	87*	104	221	76*	394	24**	41*	29**	351	108	29**	98*	117	101	81*	91*
Aphids	92	17	17	33	25	74	6	10	2	68	19	5	23	17	18	16	18
	18.9%	19.5%	16.3%	14.9%	32.9%	18.8%	25.0%	24.4%	6.9%	19.4%	17.6%	17.2%	23.5%	14.5%	17.8%	19.8%	19.8%
					bCD								n				
Caterpillars	47	9	7	18	13	35	6	4	2	39	8	0	10	13	11	7	6
	9.6%	10.3%	6.7%	8.1%	17.1%	8.9%	25.0%	9.8%	6.9%	11.1%	7.4%	-	10.2%	11.1%	10.9%	8.6%	6.6%
					CD												
Ants	256	49	53	118	36	212	13	15	16	175	62	19	60	62	51	37	46
	52.5%	56.3%	51.0%	53.4%	47.4%	53.8%	54.2%	36.6%	55.2%	49.9%	57.4%	65.5%	61.2%	53.0%	50.5%	45.7%	50.5%
						H							P				
Fire ants	150	13	12	110	15	115	6	11	18	113	26	11	31	42	37	15	25
	30.7%	14.9%	11.5%	49.8%	19.7%	29.2%	25.0%	26.8%	62.1%	32.2%	24.1%	37.9%	31.6%	35.9%	36.6%	18.5%	27.5%
				BCE									P	P	P		
Fleas	110	19	24	49	18	82	7	7	14	69	30	11	31	37	19	8	15
	22.5%	21.8%	23.1%	22.2%	23.7%	20.8%	29.2%	17.1%	48.3%	19.7%	27.8%	37.9%	31.6%	31.6%	18.8%	9.9%	16.5%
											j		OPQ	OPQ	p		
Grasshoppers	33	1	10	16	6	27	3	2	1	20	12	1	7	7	7	3	9
	6.8%	1.1%	9.6%	7.2%	7.9%	6.9%	12.5%	4.9%	3.4%	5.7%	11.1%	3.4%	7.1%	6.0%	6.9%	3.7%	9.9%
			B	B	B						j						
Grubs	126	33	36	41	16	106	10	3	7	86	35	5	18	36	30	21	21
	25.8%	37.9%	34.6%	18.6%	21.1%	26.9%	41.7%	7.3%	24.1%	24.5%	32.4%	17.2%	18.4%	30.8%	29.7%	25.9%	23.1%
		DE	DE			H								M	m		
Japanese beetles	81	20	33	25	3	59	8	7	7	53	21	7	17	25	20	4	15
	16.6%	23.0%	31.7%	11.3%	3.9%	15.0%	33.3%	17.1%	24.1%	15.1%	19.4%	24.1%	17.3%	21.4%	19.8%	4.9%	16.5%
		DE	DE	e									P	P	P		P

(Continued)

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Table 5A-5: Lawn or Garden Insecticides - What Pests Were You Trying To Get Rid Of? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Other beetles	52	9	18	21	4	43	0	6	3	36	12	4	14	13	10	6	9
	10.7%	10.3%	17.3%	9.5%	5.3%	10.9%	-	14.6%	10.3%	10.3%	11.1%	13.8%	14.3%	11.1%	9.9%	7.4%	9.9%
			DE														
Mealy bugs	35	4	8	16	7	26	3	4	2	29	6	0	7	7	6	6	9
	7.2%	4.6%	7.7%	7.2%	9.2%	6.6%	12.5%	9.8%	6.9%	8.3%	5.6%	-	7.1%	6.0%	5.9%	7.4%	9.9%
Pill bugs	26	5	6	13	2	21	3	1	1	20	5	1	4	9	3	5	5
	5.3%	5.7%	5.8%	5.9%	2.6%	5.3%	12.5%	2.4%	3.4%	5.7%	4.6%	3.4%	4.1%	7.7%	3.0%	6.2%	5.5%
Potato bugs	30	6	10	9	5	23	3	3	1	18	9	3	7	9	5	3	6
	6.1%	6.9%	9.6%	4.1%	6.6%	5.8%	12.5%	7.3%	3.4%	5.1%	8.3%	10.3%	7.1%	7.7%	5.0%	3.7%	6.6%
			D														
Snails/slugs	66	7	20	27	12	55	4	2	5	45	15	6	18	20	10	7	11
	13.5%	8.0%	19.2%	12.2%	15.8%	14.0%	16.7%	4.9%	17.2%	12.8%	13.9%	20.7%	18.4%	17.1%	9.9%	8.6%	12.1%
			Bd										op	p			
Tomato worms	53	8	15	25	5	44	2	1	6	33	17	3	14	14	7	9	9
	10.9%	9.2%	14.4%	11.3%	6.6%	11.2%	8.3%	2.4%	20.7%	9.4%	15.7%	10.3%	14.3%	12.0%	6.9%	11.1%	9.9%
						h					j		o				
Other	55	6	13	29	7	41	3	5	6	37	14	4	16	11	13	11	4
	11.3%	6.9%	12.5%	13.1%	9.2%	10.4%	12.5%	12.2%	20.7%	10.5%	13.0%	13.8%	16.3%	9.4%	12.9%	13.6%	4.4%
													Q		Q	Q	
Sigma	1212	206	282	550	174	963	77	81	91	841	291	80	277	322	247	158	208
	248.4%	236.8%	271.2%	248.9%	228.9%	244.4%	320.8%	197.6%	313.8%	239.6%	269.4%	275.9%	282.7%	275.2%	244.6%	195.1%	228.6%

5B. OUTDOOR NONPLANT INSECTICIDES

OVERVIEW

Overall, 72% of the respondents indicate that they do not use outdoor nonplant insecticides, down slightly from 73% in 2009. Approximately 17% of the respondents report purchasing these products during the last 12 months.

Table 5B-1: Outdoor Non-Plant Insecticides (Yard Fogger, etc.) - When Last Bought?

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburba n SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Base: Total Respondents	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
Total answering	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
One year ago or less (net)	267	56	63	98	50	192	24	35	16	202	56	9	58	57	50	48	54
	17.2%	18.4%	17.2%	17.9%	15.1%	16.4%	30.0%	16.3%	19.0%	17.8%	18.2%	8.3%	15.3%	13.8%	18.4%	19.4%	22.2%
							FH			L	L					n	MN
Less than 6 months ago	113	22	26	40	25	89	7	13	4	86	23	4	25	25	23	20	20
	7.3%	7.2%	7.1%	7.3%	7.5%	7.6%	8.8%	6.0%	4.8%	7.6%	7.5%	3.7%	6.6%	6.1%	8.5%	8.1%	8.2%
6 months to 1 year ago	154	34	37	58	25	103	17	22	12	116	33	5	33	32	27	28	34
	9.9%	11.2%	10.1%	10.6%	7.5%	8.8%	21.3%	10.2%	14.3%	10.2%	10.7%	4.6%	8.7%	7.8%	9.9%	11.3%	14.0%
							FH		f	l	l						MN
More than 1 year ago	172	24	45	68	35	137	6	19	10	124	28	20	34	59	30	26	23
	11.1%	7.9%	12.3%	12.4%	10.5%	11.7%	7.5%	8.8%	11.9%	10.9%	9.1%	18.3%	9.0%	14.3%	11.0%	10.5%	9.5%
			b	B								JK		Mq			
Do not use product	1,113	224	259	383	247	844	50	161	58	810	223	80	286	296	192	173	166
	71.7%	73.7%	70.6%	69.8%	74.4%	72.0%	62.5%	74.9%	69.0%	71.3%	72.6%	73.4%	75.7%	71.8%	70.6%	70.0%	68.3%
						g		G					Q				
Sigma	1,552	304	367	549	332	1,173	80	215	84	1,136	307	109	378	412	272	247	243
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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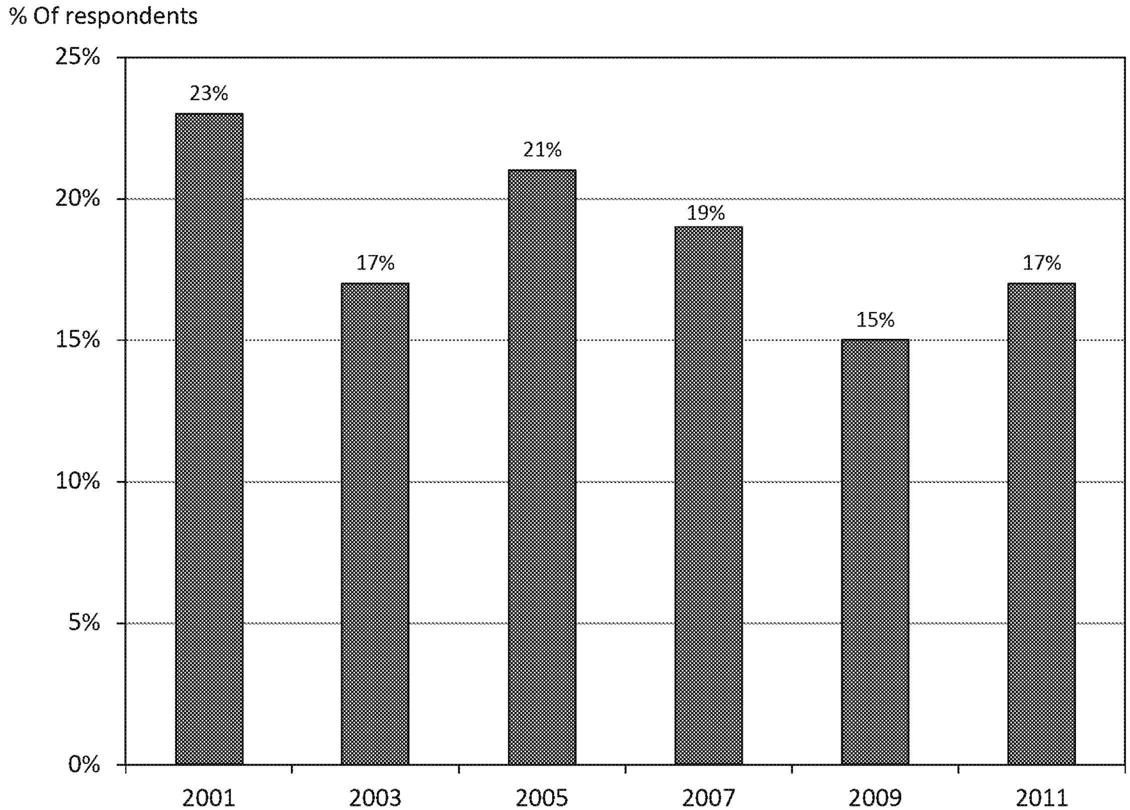
Figure 5B-1: Percentage of Respondents Who Purchased Outdoor Nonplant Insecticides During the Last 12 Months, 2001 to 2011



GEOGRAPHIC REGION

Respondents in the Northeast report the highest incidence of outdoor nonplant insecticide purchase, with 18%, and respondents in the West report the lowest incidence of purchase, with 15%. The incidence of purchase of outdoor nonplant insecticides is about 17% for respondents in the Midwest and about 18% for respondents in the South.

POPULATION DENSITY

Purchase incidence of outdoor nonplant insecticides is higher among suburban respondents, where 18% report purchasing, and lowest among rural respondents, where 8% report purchasing.

FAMILY INCOME

In 2011, households with a family income of $100,000 or more purchased the most outdoor nonplant insecticides with 22% of respondents purchasing products one year ago or less. Families with an income between $25,000 and $50,000 purchased the least with 14% of respondents reporting a purchase.

BRAND RECOLLECTION

In 2011, Raid was the leading brand of outdoor non-plant insecticides used, with 44% of respondents reporting using one of the various Raid products. Of the Raid products, Wasp & Hornet spray was the leading individual product with 20% purchasing it in 2011, followed by Flying Insect Killer and House & Garden Bug Killer with 17% and 11% of responses, respectively. Twenty percent of the respondents indicate that they purchased Black Flag brand Wasp & Hornet spray. Bengal Wasp & Hornet also ranked high with 10% of respondents reporting they purchased in 2011. Raid was purchased more in the West and Midwest regions where 50% and 54%, respectively, reported purchasing it, while only 35% in the Northeast and 40% in the South. There was no significant difference in purchases of Raid products across the various income levels, although families with an income of $100,000 or more purchased Raid the least with 33%. Brand identification of other products is minimal due to regional distribution.

Table 5B-2: Outdoor Non-Plant Insecticides (Yard Fogger, etc.) - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	267	56*	63*	98*	50*	192	24**	35*	16**	202	56*	9**	58*	57*	50*	48*	54*
Don't know	43	8	11	16	8	24	5	8	6	32	9	2	14	8	7	9	5
	16.1%	14.3%	17.5%	16.3%	16.0%	12.5%	20.8%	22.9%	37.5%	15.8%	16.1%	22.2%	24.1%	14.0%	14.0%	18.8%	9.3%
													Q				
Total answering	224	48*	52*	82*	42*	168	19**	27**	10**	170	47*	7**	44*	49*	43*	39*	49*
Bengal (Net)	38	10	4	20	4	25	8	4	1	26	10	2	8	5	5	5	15
	17.0%	20.8%	7.7%	24.4%	9.5%	14.9%	42.1%	14.8%	10.0%	15.3%	21.3%	28.6%	18.2%	10.2%	11.6%	12.8%	30.6%
		c		Ce													NOp
Bengal Wasp & Hornet	23	7	3	11	2	17	4	1	1	15	8	0	5	4	5	2	7
	10.3%	14.6%	5.8%	13.4%	4.8%	10.1%	21.1%	3.7%	10.0%	8.8%	17.0%	-	11.4%	8.2%	11.6%	5.1%	14.3%
Bengal Yard & Patio	24	6	1	14	3	16	5	3	0	17	5	2	4	4	2	3	11
	10.7%	12.5%	1.9%	17.1%	7.1%	9.5%	26.3%	11.1%	-	10.0%	10.6%	28.6%	9.1%	8.2%	4.7%	7.7%	22.4%
		C		C													mnOp
Black Flag (Net)	61	18	11	22	10	45	4	10	2	47	14	0	10	14	12	9	16
	27.2%	37.5%	21.2%	26.8%	23.8%	26.8%	21.1%	37.0%	20.0%	27.6%	29.8%	-	22.7%	28.6%	27.9%	23.1%	32.7%
		c															
Black Flag Wasp/Horne	45	14	7	16	8	34	2	7	2	31	14	0	9	9	8	8	11
	20.1%	29.2%	13.5%	19.5%	19.0%	20.2%	10.5%	25.9%	20.0%	18.2%	29.8%	-	20.5%	18.4%	18.6%	20.5%	22.4%
		c									j						
Black Flag Backyard Fogger	29	9	5	10	5	21	4	3	1	24	5	0	2	8	7	4	8
	12.9%	18.8%	9.6%	12.2%	11.9%	12.5%	21.1%	11.1%	10.0%	14.1%	10.6%	-	4.5%	16.3%	16.3%	10.3%	16.3%
														m	m		m
Bayer Advanced Mosquito	29	9	4	10	6	19	6	4	0	26	3	0	6	4	7	0	12
	12.9%	18.8%	7.7%	12.2%	14.3%	11.3%	31.6%	14.8%	-	15.3%	6.4%	-	13.6%	8.2%	16.3%	-	24.5%
													P	p	P		NP
Bonide (Net)	27	8	5	12	2	16	6	4	1	23	4	0	3	4	2	5	13
	12.1%	16.7%	9.6%	14.6%	4.8%	9.5%	31.6%	14.8%	10.0%	13.5%	8.5%	-	6.8%	8.2%	4.7%	12.8%	26.5%
		e															MNO
Bonide Yard/Patio Fogger	12	5	2	5	0	6	4	1	1	9	3	0	1	0	1	2	8
	5.4%	10.4%	3.8%	6.1%	-	3.6%	21.1%	3.7%	10.0%	5.3%	6.4%	-	2.3%	-	2.3%	5.1%	16.3%
		E															MNO

(Continued)

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Table 5B-2: Outdoor Non-Plant Insecticides (Yard Fogger, etc.) - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Bonide Mosquito Beater	10	2	2	6	0	7	1	2	0	8	2	0	2	3	1	2	2
	4.5%	4.2%	3.8%	7.3%	-	4.2%	5.3%	7.4%	-	4.7%	4.3%	-	4.5%	6.1%	2.3%	5.1%	4.1%
				e													
Bonide Bug Beater	8	1	1	4	2	6	1	1	0	7	1	0	0	1	2	1	4
	3.6%	2.1%	1.9%	4.9%	4.8%	3.6%	5.3%	3.7%	-	4.1%	2.1%	-	-	2.0%	4.7%	2.6%	8.2%
																	m
Dr. T's Nature Products Mosquito	4	2	2	0	0	3	0	1	0	4	0	0	1	1	0	0	2
	1.8%	4.2%	3.8%	-	-	1.8%	-	3.7%	-	2.4%	-	-	2.3%	2.0%	-	-	4.1%
		d	d														
Enforcer (Net)	16	8	5	3	0	11	3	2	0	13	3	0	2	3	4	2	5
	7.1%	16.7%	9.6%	3.7%	-	6.5%	15.8%	7.4%	-	7.6%	6.4%	-	4.5%	6.1%	9.3%	5.1%	10.2%
		DE	E														
Enforcer Outdoor Insect Killer	8	3	3	2	0	6	1	1	0	6	2	0	1	1	2	0	4
	3.6%	6.3%	5.8%	2.4%	-	3.6%	5.3%	3.7%	-	3.5%	4.3%	-	2.3%	2.0%	4.7%	-	8.2%
																	p
Enforcer Flying Insect Killer	6	3	1	2	0	4	1	1	0	4	2	0	1	1	2	1	1
	2.7%	6.3%	1.9%	2.4%	-	2.4%	5.3%	3.7%	-	2.4%	4.3%	-	2.3%	2.0%	4.7%	2.6%	2.0%
Enforcer Wasp spray	8	4	1	3	0	6	2	0	0	6	2	0	1	1	2	1	3
	3.6%	8.3%	1.9%	3.7%	-	3.6%	10.5%	-	-	3.5%	4.3%	-	2.3%	2.0%	4.7%	2.6%	6.1%
		e															
Cutter Backyard Bug Control	11	2	3	5	1	10	1	0	0	8	2	1	2	1	4	2	2
	4.9%	4.2%	5.8%	6.1%	2.4%	6.0%	5.3%	-	-	4.7%	4.3%	14.3%	4.5%	2.0%	9.3%	5.1%	4.1%
Hot Shot Wasp/Hornet	16	3	2	11	0	12	0	2	2	9	4	3	3	6	2	3	2
	7.1%	6.3%	3.8%	13.4%	-	7.1%	-	7.4%	20.0%	5.3%	8.5%	42.9%	6.8%	12.2%	4.7%	7.7%	4.1%
				cE													
Ortho (net)	37	9	7	15	6	26	3	4	4	30	5	2	10	10	3	6	8
	16.5%	18.8%	13.5%	18.3%	14.3%	15.5%	15.8%	14.8%	40.0%	17.6%	10.6%	28.6%	22.7%	20.4%	7.0%	15.4%	16.3%
													O	o			
Ortho Mosquito-B-Gon	7	1	0	4	2	6	0	0	1	6	1	0	3	0	1	2	1
	3.1%	2.1%	-	4.9%	4.8%	3.6%	-	-	10.0%	3.5%	2.1%	-	6.8%	-	2.3%	5.1%	2.0%
													n				

(Continued)

Table 5B-2. Outdoor Non-Plant Insecticides (Yard Fogger, etc.) - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Ortho Max Flying Insect Killer	21	7	3	8	3	17	2	1	1	17	3	1	5	6	2	3	5
	9.4%	14.6%	5.8%	9.8%	7.1%	10.1%	10.5%	3.7%	10.0%	10.0%	6.4%	14.3%	11.4%	12.2%	4.7%	7.7%	10.2%
Ortho Hornet/Wasp	13	3	4	5	1	6	2	3	2	10	2	1	2	4	1	2	4
	5.8%	6.3%	7.7%	6.1%	2.4%	3.6%	10.5%	11.1%	20.0%	5.9%	4.3%	14.3%	4.5%	8.2%	2.3%	5.1%	8.2%
Raid (Net)	99	17	28	33	21	77	7	10	5	77	20	2	22	21	23	17	16
	44.2%	35.4%	53.8%	40.2%	50.0%	45.8%	36.8%	37.0%	50.0%	45.3%	42.6%	28.6%	50.0%	42.9%	53.5%	43.6%	32.7%
			b										q		Q		
Raid Earth Options	5	1	0	3	1	3	0	2	0	4	1	0	0	2	2	1	0
	2.2%	2.1%	-	3.7%	2.4%	1.8%	-	7.4%	-	2.4%	2.1%	-	-	4.1%	4.7%	2.6%	-
Raid Flying Insect Killer	37	4	16	11	6	28	3	3	3	26	9	2	12	7	8	4	6
	16.5%	8.3%	30.8%	13.4%	14.3%	16.7%	15.8%	11.1%	30.0%	15.3%	19.1%	28.6%	27.3%	14.3%	18.6%	10.3%	12.2%
			BDe										pq				
Raid House & Garden Bug Killer	25	6	4	9	6	17	4	3	1	23	2	0	7	2	6	7	3
	11.2%	12.5%	7.7%	11.0%	14.3%	10.1%	21.1%	11.1%	10.0%	13.5%	4.3%	-	15.9%	4.1%	14.0%	17.9%	6.1%
										k			n		n	Nq	
Raid Wasp/Hornet	45	8	14	13	10	41	3	0	1	33	12	0	8	8	14	8	7
	20.1%	16.7%	26.9%	15.9%	23.8%	24.4%	15.8%	-	10.0%	19.4%	25.5%	-	18.2%	16.3%	32.6%	20.5%	14.3%
															nQ		
Raid Yard Guard	18	3	8	5	2	15	0	3	0	14	4	0	2	6	4	2	4
	8.0%	6.3%	15.4%	6.1%	4.8%	8.9%	-	11.1%	-	8.2%	8.5%	-	4.5%	12.2%	9.3%	5.1%	8.2%
			d														
Raid OTHER (Please Specify)	3	0	0	0	3	3	0	0	0	3	0	0	1	0	1	1	0
	1.3%	-	-	-	7.1%	1.8%	-	-	-	1.8%	-	-	2.3%	-	2.3%	2.6%	-
					bcD												
Repel Camp Shield Outdoor Insect Control	2	0	1	1	0	1	0	1	0	2	0	0	0	0	2	0	0
	0.9%	-	1.9%	1.2%	-	0.6%	-	3.7%	-	1.2%	-	-	-	-	4.7%	-	-
Safer Yellow Jacket	3	1	0	2	0	2	1	0	0	3	0	0	0	0	0	0	3
	1.3%	2.1%	-	2.4%	-	1.2%	5.3%	-	-	1.8%	-	-	-	-	-	-	6.1%
																	n

(Continued)

Kline

Table 5B-2: Outdoor Non-Plant Insecticides (Yard Fogger, etc.) - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Spectracide (Net)	16	5	3	7	1	13	3	0	0	11	5	0	3	4	3	0	6
	7.1%	10.4%	5.8%	8.5%	2.4%	7.7%	15.8%	-	-	6.5%	10.6%	-	6.8%	8.2%	7.0%	-	12.2%
														p	p		P
Spectracide Flying Insect	10	3	1	5	1	8	2	0	0	6	4	0	2	4	1	0	3
	4.5%	6.3%	1.9%	6.1%	2.4%	4.8%	10.5%	-	-	3.5%	8.5%	-	4.5%	8.2%	2.3%	-	6.1%
														p			
Spectracide Mosquito	7	3	0	4	0	5	2	0	0	5	2	0	0	0	2	0	5
	3.1%	6.3%	-	4.9%	-	3.0%	10.5%	-	-	2.9%	4.3%	-	-	-	4.7%	-	10.2%
		c															MNP
Spectracide Wasp/Hornet Killer	6	1	3	2	0	6	0	0	0	3	3	0	2	1	2	0	1
	2.7%	2.1%	5.8%	2.4%	-	3.6%	-	-	-	1.8%	6.4%	-	4.5%	2.0%	4.7%	-	2.0%
											j						
Victor Poison Free	9	3	2	3	1	6	2	1	0	7	2	0	2	0	1	0	6
	4.0%	6.3%	3.8%	3.7%	2.4%	3.6%	10.5%	3.7%	-	4.1%	4.3%	-	4.5%	-	2.3%	-	12.2%
																	NoP
Zodiac Pre-strike (Net)	3	2	0	1	0	1	2	0	0	2	1	0	0	0	0	0	3
	1.3%	4.2%	-	1.2%	-	0.6%	10.5%	-	-	1.2%	2.1%	-	-	-	-	-	6.1%
																	n
Zodiac Pre-strike Outdoor Fogger	1	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	1
	0.4%	-	-	1.2%	-	0.6%	-	-	-	0.6%	-	-	-	-	-	-	2.0%
Zodiac Pre-strike Torpedo	2	2	0	0	0	0	2	0	0	1	1	0	0	0	0	0	2
	0.9%	4.2%	-	-	-	-	10.5%	-	-	0.6%	2.1%	-	-	-	-	-	4.1%
		d															
Other	5	0	1	2	2	2	0	2	1	5	0	0	0	3	1	1	0
	2.2%	-	1.9%	2.4%	4.8%	1.2%	-	7.4%	10.0%	2.9%	-	-	-	6.1%	2.3%	2.6%	-
														q			
Sigma	452	116	94	177	65	334	55	46	17	343	99	10	84	87	93	60	128
	201.8%	241.7%	180.8%	215.9%	154.8%	198.8%	289.5%	170.4%	170.0%	201.8%	210.6%	142.9%	190.9%	177.6%	216.3%	153.8%	261.2%

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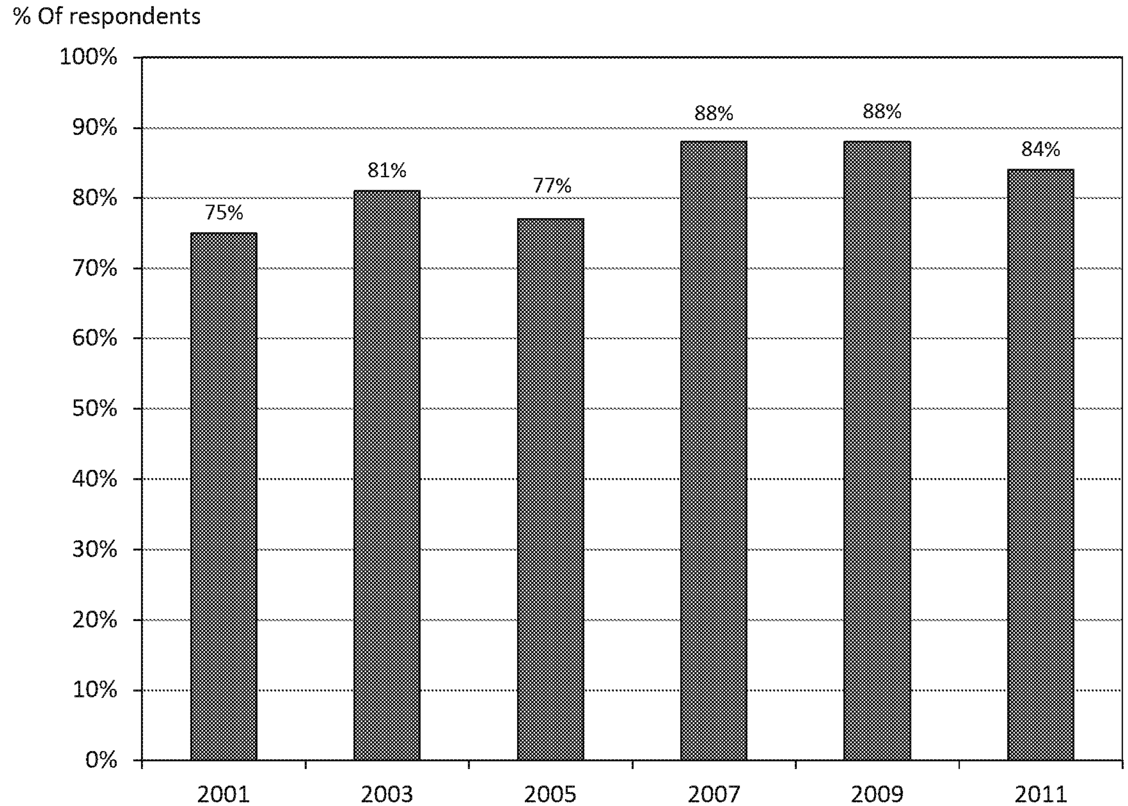
Table 5B-3: Outdoor Non-Plant Insecticides (Yard Fogger, etc.) - What Form was the Product? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	267	56*	63*	98*	50*	192	24**	35*	16**	202	56*	9**	58*	57*	50*	48*	54*
Don't know	20	4	4	9	3	16	2	2	0	17	1	2	6	3	3	3	5
	7.5%	7.1%	6.3%	9.2%	6.0%	8.3%	8.3%	5.7%	-	8.4%	1.8%	22.2%	10.3%	5.3%	6.0%	6.3%	9.3%
										k							
Total answering	247	52*	59*	89*	47*	176	22**	33*	16**	185	55*	7**	52*	54*	47*	45*	49*
Aerosol spray	162	31	48	57	26	116	11	22	13	115	41	6	36	36	34	28	28
	65.6%	59.6%	81.4%	64.0%	55.3%	65.9%	50.0%	66.7%	81.3%	62.2%	74.5%	85.7%	69.2%	66.7%	72.3%	62.2%	57.1%
			BDE								j						
Dust	22	4	2	14	2	11	4	3	4	14	6	2	9	3	1	2	7
	8.9%	7.7%	3.4%	15.7%	4.3%	6.3%	18.2%	9.1%	25.0%	7.6%	10.9%	28.6%	17.3%	5.6%	2.1%	4.4%	14.3%
				Ce									nOp				O
Granules	43	9	9	17	8	29	6	4	4	35	7	1	9	10	7	4	13
	17.4%	17.3%	15.3%	19.1%	17.0%	16.5%	27.3%	12.1%	25.0%	18.9%	12.7%	14.3%	17.3%	18.5%	14.9%	8.9%	26.5%
																	P
Liquid concentrate	48	11	6	16	15	33	8	4	3	41	7	0	8	11	3	8	18
	19.4%	21.2%	10.2%	18.0%	31.9%	18.8%	36.4%	12.1%	18.8%	22.2%	12.7%	-	15.4%	20.4%	6.4%	17.8%	36.7%
					Cd									O		o	MnOP
Ready-to-use (RTU) liquid with applicator	35	9	4	16	6	27	4	4	0	30	5	0	5	6	9	7	8
	14.2%	17.3%	6.8%	18.0%	12.8%	15.3%	18.2%	12.1%	-	16.2%	9.1%	-	9.6%	11.1%	19.1%	15.6%	16.3%
		c		c													
RTU liquid without applicator	14	7	3	4	0	10	2	2	0	11	3	0	1	2	3	2	6
	5.7%	13.5%	5.1%	4.5%	-	5.7%	9.1%	6.1%	-	5.9%	5.5%	-	1.9%	3.7%	6.4%	4.4%	12.2%
		dE															M
Water soluble powder	8	2	2	3	1	5	1	2	0	8	0	0	1	2	2	0	3
	3.2%	3.8%	3.4%	3.4%	2.1%	2.8%	4.5%	6.1%	-	4.3%	-	-	1.9%	3.7%	4.3%	-	6.1%
																	p
Other	2	0	0	2	0	1	0	1	0	1	0	1	0	0	1	1	0
	0.8%	-	-	2.2%	-	0.6%	-	3.0%	-	0.5%	-	14.3%	-	-	2.1%	2.2%	-
Sigma	334	73	74	129	58	232	36	42	24	255	69	10	69	70	60	52	83
	135.2%	140.4%	125.4%	144.9%	123.4%	131.8%	163.6%	127.3%	150.0%	137.8%	125.5%	142.9%	132.7%	129.6%	127.7%	115.6%	169.4%

Figure 5B-2: Percentage of Purchasers Who Recall the Last Brand of Outdoor Nonplant Insecticide they Purchased, 2001 to 2011



PRODUCT FORM

Aerosols account for 66% of the responses concerning product form purchased in 2011, a decrease from the 78% reported in 2009. Aerosols were used most in the Midwest region with 81% and least in the West with 55%. The Northeast and South reported 60% and 64%, respectively. Liquid concentrates and granules rank second and third with 19% and 17%, respectively.

RETAIL OUTLET

Home improvement centers and discount or mass-merchandise stores are the primary retail outlets for outdoor nonplant insecticides, with 35% and 34% of the respondents, respectively reporting purchases at these outlets in 2011. Lawn and garden centers rank a distant third with 7% of the respondents,. The higher the family income, the more likely the respondents are to purchase their outdoor nonplant insecticides at a home improvement store rather than a discount/mass-merchandise center. Urban respondents prefer home improvement centers, while rural respondents prefer discount or mass-merchandise stores. Suburban respondents did not show a preference for either retail outlet reporting 35% for each.

PRODUCT USAGE

Outdoor nonplant insecticides are used mainly for controlling mosquitoes, wasps and hornets, ants, and bees, accounting for 42%, 41%, 29%, and 20% of the responses, respectively. Mosquitoes control is highest in the Midwest and lowest in the West. Wasp and hornet control is reported highest in the Midwest at 48% and lowest in the West with 38% of respondents reporting purchasing them. Respondents report treating approximately 1.7 kinds of insects each with the outdoor nonplant insecticide(s) they purchased.

NUMBER OF TIMES PURCHASED

When asked how many times the respondents purchased outdoor nonplant insecticides, 34.1% said they purchased them just once, and the same percentage reported purchasing them twice. There were 22% that purchased three times, while 10% said they purchased four or more times.

Table 5B-4: Outdoor Non-Plant Insecticides (Yard Fogger, etc.) - Place Product Purchased Most Often? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	267	56*	63*	98*	50*	192	24**	35*	16**	202	56*	9**	58*	57*	50*	48*	54*
Don't know	21	6	6	5	4	12	5	3	1	19	2	0	5	4	5	3	4
	7.9%	10.7%	9.5%	5.1%	8.0%	6.3%	20.8%	8.6%	6.3%	9.4%	3.6%	-	8.6%	7.0%	10.0%	6.3%	7.4%
Total answering	246	50*	57*	93*	46*	180	19**	32*	15**	183	54*	9**	53*	53*	45*	45*	50*
Discount/mass merchandise store (e.g. Walmart, Kmart)	84	17	23	31	13	61	5	12	6	59	19	6	21	21	17	17	8
	34.1%	34.0%	40.4%	33.3%	28.3%	33.9%	26.3%	37.5%	40.0%	32.2%	35.2%	66.7%	39.6%	39.6%	37.8%	37.8%	16.0%
													Q	Q	Q	Q	
Lawn and garden center/nursery	18	5	4	7	2	11	3	2	2	15	3	0	4	3	3	5	3
	7.3%	10.0%	7.0%	7.5%	4.3%	6.1%	15.8%	6.3%	13.3%	8.2%	5.6%	-	7.5%	5.7%	6.7%	11.1%	6.0%
Supermarket/grocery store	13	2	1	5	5	12	0	1	0	11	2	0	2	2	2	2	5
	5.3%	4.0%	1.8%	5.4%	10.9%	6.7%	-	3.1%	-	6.0%	3.7%	-	3.8%	3.8%	4.4%	4.4%	10.0%
					c												
Home improvement center (e.g. Home Depot, Lowes)	86	15	22	33	16	65	5	11	5	65	19	2	15	15	17	18	21
	35.0%	30.0%	38.6%	35.5%	34.8%	36.1%	26.3%	34.4%	33.3%	35.5%	35.2%	22.2%	28.3%	28.3%	37.8%	40.0%	42.0%
Hardware store (e.g. True Value)	16	4	3	6	3	9	2	4	1	8	7	1	4	4	1	1	6
	6.5%	8.0%	5.3%	6.5%	6.5%	5.0%	10.5%	12.5%	6.7%	4.4%	13.0%	11.1%	7.5%	7.5%	2.2%	2.2%	12.0%
											J						op
Farm supply store	11	1	2	6	2	10	0	1	0	9	2	0	6	3	1	0	1
	4.5%	2.0%	3.5%	6.5%	4.3%	5.6%	-	3.1%	-	4.9%	3.7%	-	11.3%	5.7%	2.2%	-	2.0%
													oPq				
Mail order/catalog	5	3	0	1	1	2	1	1	1	4	1	0	1	1	1	0	2
	2.0%	6.0%	-	1.1%	2.2%	1.1%	5.3%	3.1%	6.7%	2.2%	1.9%	-	1.9%	1.9%	2.2%	-	4.0%
		cd															
Warehouse/wholesale club	8	2	0	4	2	5	3	0	0	7	1	0	0	4	1	1	2
	3.3%	4.0%	-	4.3%	4.3%	2.8%	15.8%	-	-	3.8%	1.9%	-	-	7.5%	2.2%	2.2%	4.0%
														M			
Other	5	1	2	0	2	5	0	0	0	5	0	0	0	0	2	1	2
	2.0%	2.0%	3.5%	-	4.3%	2.8%	-	-	-	2.7%	-	-	-	-	4.4%	2.2%	4.0%
			d		D												
Sigma	246	50	57	93	46	180	19	32	15	183	54	9	53	53	45	45	50
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Kline

Table 5B-5: Outdoor Non-Plant Insecticides (Yard Fogger, etc.) - What Pests Were You Trying to Get Rid of? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	267	56*	63*	98*	50*	192	24**	35*	16**	202	56*	9**	58*	57*	50*	48*	54*
Don't know	11	3	1	5	2	7	1	3	0	9	1	1	3	2	0	3	3
	4.1%	5.4%	1.6%	5.1%	4.0%	3.6%	4.2%	8.6%	-	4.5%	1.8%	11.1%	5.2%	3.5%	-	6.3%	5.6%
																o	o
Total answering	256	53*	62*	93*	48*	185	23**	32*	16**	193	55*	8**	55*	55*	50*	45*	51*
Ants	73	13	18	23	19	54	10	4	5	57	13	3	21	17	12	15	8
	28.5%	24.5%	29.0%	24.7%	39.6%	29.2%	43.5%	12.5%	31.3%	29.5%	23.6%	37.5%	38.2%	30.9%	24.0%	33.3%	15.7%
					d	h							Q	q		Q	
Bees	50	16	10	16	8	38	4	6	2	35	14	1	12	10	7	11	10
	19.5%	30.2%	16.1%	17.2%	16.7%	20.5%	17.4%	18.8%	12.5%	18.1%	25.5%	12.5%	21.8%	18.2%	14.0%	24.4%	19.6%
		cd															
Fire ants	49	12	4	26	7	28	7	9	5	36	12	1	9	12	5	2	21
	19.1%	22.6%	6.5%	28.0%	14.6%	15.1%	30.4%	28.1%	31.3%	18.7%	21.8%	12.5%	16.4%	21.8%	10.0%	4.4%	41.2%
		C		Ce				f					p	P			MNOP
Fleas	42	12	6	20	4	31	2	6	3	35	7	0	9	9	9	4	11
	16.4%	22.6%	9.7%	21.5%	8.3%	16.8%	8.7%	18.8%	18.8%	18.1%	12.7%	-	16.4%	16.4%	18.0%	8.9%	21.6%
		ce		ce													p
Flies	60	12	15	23	10	41	6	10	3	43	14	3	18	12	10	7	13
	23.4%	22.6%	24.2%	24.7%	20.8%	22.2%	26.1%	31.3%	18.8%	22.3%	25.5%	37.5%	32.7%	21.8%	20.0%	15.6%	25.5%
													p				
Mosquitoes	108	25	30	43	10	84	8	10	6	83	21	4	31	23	18	17	19
	42.2%	47.2%	48.4%	46.2%	20.8%	45.4%	34.8%	31.3%	37.5%	43.0%	38.2%	50.0%	56.4%	41.8%	36.0%	37.8%	37.3%
		E	E	E									Opq				
Moths	22	6	4	8	4	13	4	5	0	17	5	0	3	6	5	2	6
	8.6%	11.3%	6.5%	8.6%	8.3%	7.0%	17.4%	15.6%	-	8.8%	9.1%	-	5.5%	10.9%	10.0%	4.4%	11.8%
Spiders	46	7	9	19	11	33	3	5	5	37	9	0	10	10	9	9	8
	18.0%	13.2%	14.5%	20.4%	22.9%	17.8%	13.0%	15.6%	31.3%	19.2%	16.4%	-	18.2%	18.2%	18.0%	20.0%	15.7%
Wasps/Hornets	105	21	30	36	18	84	8	6	7	76	24	5	23	28	22	17	15
	41.0%	39.6%	48.4%	38.7%	37.5%	45.4%	34.8%	18.8%	43.8%	39.4%	43.6%	62.5%	41.8%	50.9%	44.0%	37.8%	29.4%
						H								Q			
Used as a preventative	22	3	6	10	3	14	0	5	3	17	5	0	6	4	6	5	1
	8.6%	5.7%	9.7%	10.8%	6.3%	7.6%	-	15.6%	18.8%	8.8%	9.1%	-	10.9%	7.3%	12.0%	11.1%	2.0%
													q		q	q	
Other	7	0	1	3	3	3	0	2	2	5	2	0	1	2	2	1	1
	2.7%	-	1.6%	3.2%	6.3%	1.6%	-	6.3%	12.5%	2.6%	3.6%	-	1.8%	3.6%	4.0%	2.2%	2.0%
					b												
Sigma	584	127	133	227	97	423	52	68	41	441	126	17	143	133	105	90	113
	228.1%	239.6%	214.5%	244.1%	202.1%	228.6%	226.1%	212.5%	256.3%	228.5%	229.1%	212.5%	260.0%	241.8%	210.0%	200.0%	221.6%

Kline

Table 5B-6: Outdoor Non-Plant Insecticides (Yard Fogger, etc.) - Number Of Times Purchased This Year Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	267	56*	63*	98*	50*	192	24**	35*	16**	202	56*	9**	58*	57*	50*	48*	54*
Total answering	267	56*	63*	98*	50*	192	24**	35*	16**	202	56*	9**	58*	57*	50*	48*	54*
1	91	16	27	32	16	66	7	11	7	70	17	4	23	19	16	18	15
	34.1%	28.6%	42.9%	32.7%	32.0%	34.4%	29.2%	31.4%	43.8%	34.7%	30.4%	44.4%	39.7%	33.3%	32.0%	37.5%	27.8%
2	91	18	23	35	15	72	5	9	5	68	19	4	20	21	24	19	7
	34.1%	32.1%	36.5%	35.7%	30.0%	37.5%	20.8%	25.7%	31.3%	33.7%	33.9%	44.4%	34.5%	36.8%	48.0%	39.6%	13.0%
													Q	Q	Q	Q	
3	59	16	9	20	14	33	11	11	4	41	17	1	12	13	4	8	22
	22.1%	28.6%	14.3%	20.4%	28.0%	17.2%	45.8%	31.4%	25.0%	20.3%	30.4%	11.1%	20.7%	22.8%	8.0%	16.7%	40.7%
		c			c			f					o	O			MNOP
4	13	4	1	5	3	9	0	4	0	12	1	0	1	2	3	1	6
	4.9%	7.1%	1.6%	5.1%	6.0%	4.7%	-	11.4%	-	5.9%	1.8%	-	1.7%	3.5%	6.0%	2.1%	11.1%
																	Mp
5 or more	13	2	3	6	2	12	1	0	0	11	2	0	2	2	3	2	4
	4.9%	3.6%	4.8%	6.1%	4.0%	6.3%	4.2%	-	-	5.4%	3.6%	-	3.4%	3.5%	6.0%	4.2%	7.4%
Sigma	267	56	63	98	50	192	24	35	16	202	56	9	58	57	50	48	54
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

5C. HOUSEPLANT INSECTICIDES

OVERVIEW

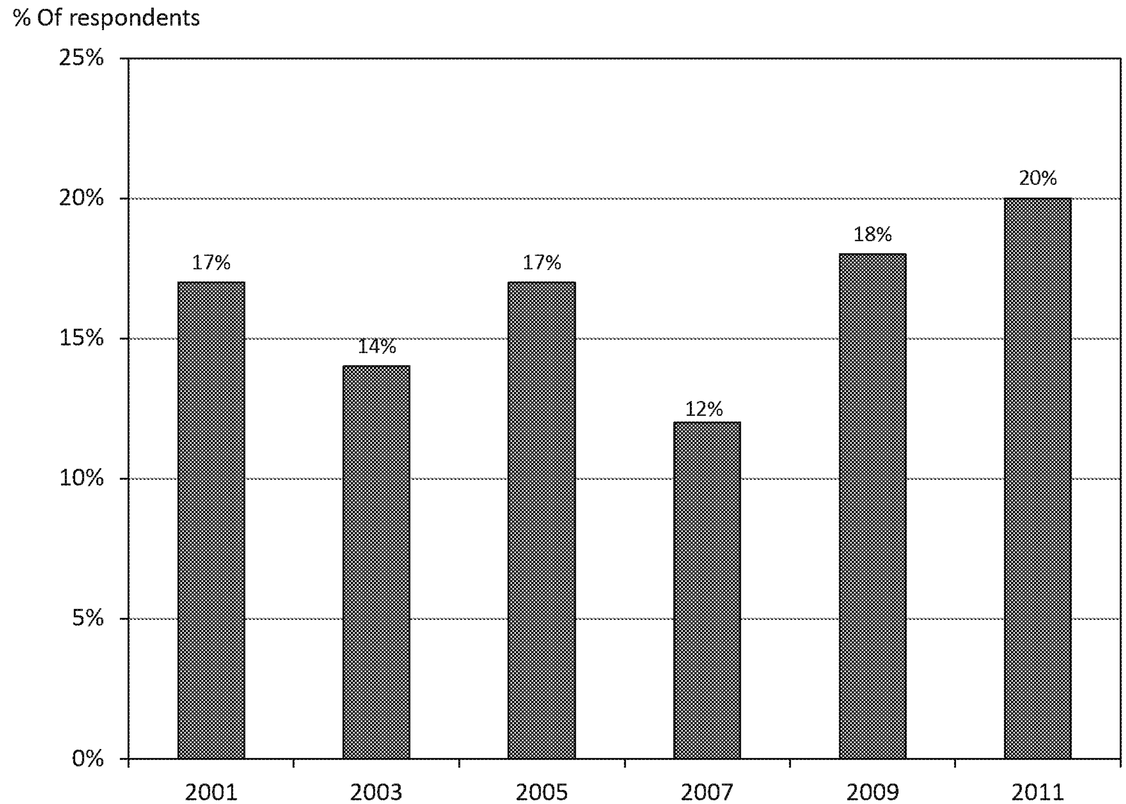
Twenty percent of the respondents report purchasing a houseplant insecticide in 2011, an increase from 18% in 2009 and 12% in 2007. Overall, 68% of the analyzed respondents indicate that they did not use houseplant insecticides.

Table 5C-1: Houseplant Insecticides - When Last Bought?

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Base: Total Respondents	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
Total answering	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
One year ago or less (net)	317	69	62	125	61	235	17	46	19	229	70	18	71	73	59	48	66
	20.4%	22.7%	16.9%	22.8%	18.4%	20.0%	21.3%	21.4%	22.6%	20.2%	22.8%	16.5%	18.8%	17.7%	21.7%	19.4%	27.2%
		c		C													MNP
Less than 6 months ago	152	34	34	61	23	118	5	22	7	105	40	7	28	39	31	21	33
	9.8%	11.2%	9.3%	11.1%	6.9%	10.1%	6.3%	10.2%	8.3%	9.2%	13.0%	6.4%	7.4%	9.5%	11.4%	8.5%	13.6%
		e		E							jl				m		Mp
6 months to 1 year ago	165	35	28	64	38	117	12	24	12	124	30	11	43	34	28	27	33
	10.6%	11.5%	7.6%	11.7%	11.4%	10.0%	15.0%	11.2%	14.3%	10.9%	9.8%	10.1%	11.4%	8.3%	10.3%	10.9%	13.6%
		c		C	c												N
More than 1 year ago	187	27	40	73	47	148	15	19	5	144	26	17	34	57	35	29	32
	12.0%	8.9%	10.9%	13.3%	14.2%	12.6%	18.8%	8.8%	6.0%	12.7%	8.5%	15.6%	9.0%	13.8%	12.9%	11.7%	13.2%
				b	B	i	HI			K		K		M			
Do not use product	1048	208	265	351	224	790	48	150	60	763	211	74	273	282	178	170	145
	67.5%	68.4%	72.2%	63.9%	67.5%	67.3%	60.0%	69.8%	71.4%	67.2%	68.7%	67.9%	72.2%	68.4%	65.4%	68.8%	59.7%
			D										oQ	Q		Q	
Sigma	1,552	304	367	549	332	1,173	80	215	84	1,136	307	109	378	412	272	247	243
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Kline

Figure 5C-1: Percentage of Respondents who Purchased Houseplant Insecticides During the Last 12 Months, 2001 to 2011



GEOGRAPHIC REGION

The use of houseplant insecticides does not vary much across the different geographic regions, with all regions reporting between 17% and 23% of respondent reporting purchasing them in 2011.

POPULATION DENSITY

Overall, 23% of suburban respondents reported using houseplant insecticides, while 20% urban and 17% rural respondents report using them.

FAMILY INCOME

Those with incomes higher than $100,000 were more likely to use houseplant insecticides with 27% respondents reporting using them, while only 19% of those with an income lower than $25,000 reported using them.

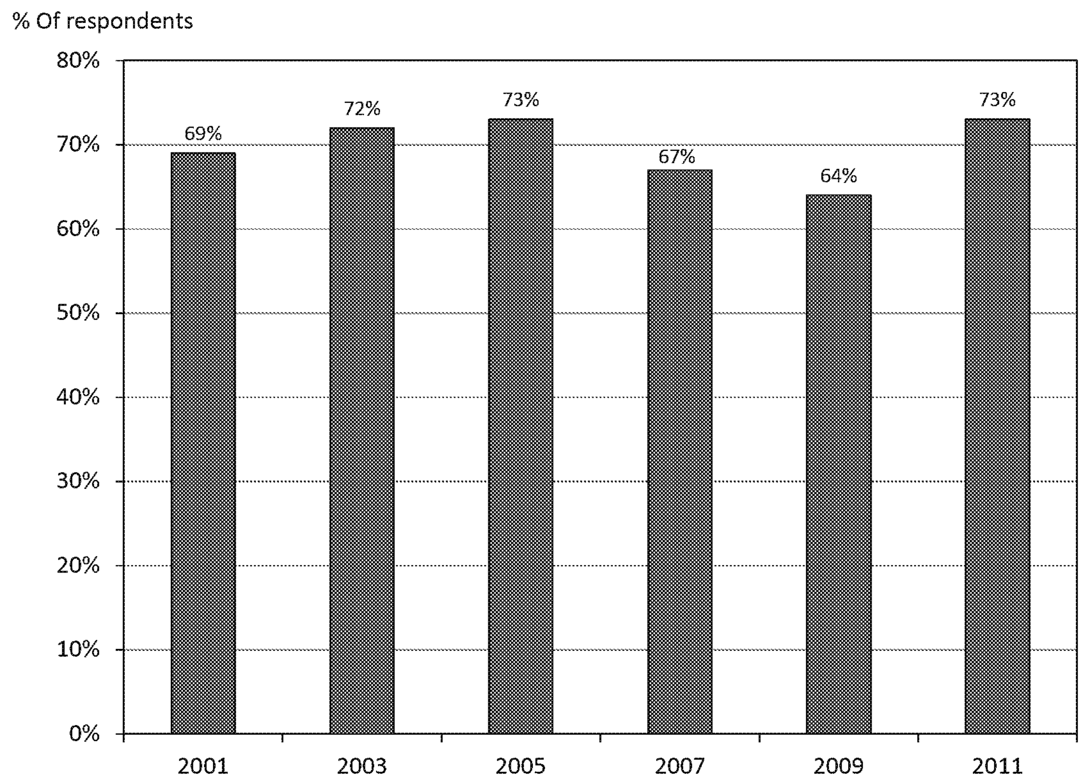
BRAND RECOLLECTION

The Shultz Houseplant brand was the most frequently brand recollected, accounting for 26% of the responses in 2011. Garden Insect Spray and Bayer Dual Action Rose & Flower Insect killer RTU rank second and third with 25% and 22% respectively, followed by Garden Safe and Safer brands with 20% and 19% of responses, respectively.

Table 5C-2: Houseplant Insecticides - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	317	69*	62*	125	61*	235	17**	46*	19**	229	70*	18**	71*	73*	59*	48*	66*
Don't know	84	17	17	33	17	69	3	8	4	62	14	8	20	18	13	17	16
	26.5%	24.6%	27.4%	26.4%	27.9%	29.4%	17.6%	17.4%	21.1%	27.1%	20.0%	44.4%	28.2%	24.7%	22.0%	35.4%	24.2%
						h											
Total answering	233	52*	45*	92*	44*	166	14**	38*	15**	167	56*	10**	51*	55*	46*	31*	50*
Bayer Dual Action Rose & Flower Insect Killer RTU	50	11	7	23	9	39	6	4	1	35	13	2	11	6	14	5	14
	21.5%	21.2%	15.6%	25.0%	20.5%	23.5%	42.9%	10.5%	6.7%	21.0%	23.2%	20.0%	21.6%	10.9%	30.4%	16.1%	28.0%
						h									N		N
Natria	19	6	3	6	4	16	2	0	1	13	6	0	4	2	3	4	6
	8.2%	11.5%	6.7%	6.5%	9.1%	9.6%	14.3%	-	6.7%	7.8%	10.7%	-	7.8%	3.6%	6.5%	12.9%	12.0%
						H											
Schultz Houseplant &	60	15	8	25	12	41	4	11	4	46	12	2	8	15	10	7	20
	25.8%	28.8%	17.8%	27.2%	27.3%	24.7%	28.6%	28.9%	26.7%	27.5%	21.4%	20.0%	15.7%	27.3%	21.7%	22.6%	40.0%
																	Mo
Garden Insect Spray	59	15	10	21	13	41	5	10	3	42	16	1	14	17	13	4	11
	25.3%	28.8%	22.2%	22.8%	29.5%	24.7%	35.7%	26.3%	20.0%	25.1%	28.6%	10.0%	27.5%	30.9%	28.3%	12.9%	22.0%
														p			
Safer (Net)	45	14	8	14	9	34	3	8	0	32	12	1	4	8	10	8	15
	19.3%	26.9%	17.8%	15.2%	20.5%	20.5%	21.4%	21.1%	-	19.2%	21.4%	10.0%	7.8%	14.5%	21.7%	25.8%	30.0%
		d													m	M	Mn
Safer Houseplant Insect Killing Soap	26	11	6	4	5	19	2	5	0	19	7	0	1	5	3	5	12
	11.2%	21.2%	13.3%	4.3%	11.4%	11.4%	14.3%	13.2%	-	11.4%	12.5%	-	2.0%	9.1%	6.5%	16.1%	24.0%
		D	d													M	MNO
Safer End ALL Insect Killer	25	7	2	11	5	18	3	4	0	18	6	1	3	4	8	3	7
	10.7%	13.5%	4.4%	12.0%	11.4%	10.8%	21.4%	10.5%	-	10.8%	10.7%	10.0%	5.9%	7.3%	17.4%	9.7%	14.0%
															m		
Garden Safe Houseplant and Garden Insect Killer	47	9	11	19	8	31	3	7	6	35	8	4	11	15	10	3	8
	20.2%	17.3%	24.4%	20.7%	18.2%	18.7%	21.4%	18.4%	40.0%	21.0%	14.3%	40.0%	21.6%	27.3%	21.7%	9.7%	16.0%
														p			
Bonide Systemic Houseplant Insect Control	8	1	1	5	1	7	1	0	0	7	1	0	1	2	2	0	3
	3.4%	1.9%	2.2%	5.4%	2.3%	4.2%	7.1%	-	-	4.2%	1.8%	-	2.0%	3.6%	4.3%	-	6.0%
Other	17	3	3	9	2	10	1	5	1	14	3	0	2	6	3	3	3
	7.3%	5.8%	6.7%	9.8%	4.5%	6.0%	7.1%	13.2%	6.7%	8.4%	5.4%	-	3.9%	10.9%	6.5%	9.7%	6.0%
Sigma	311	78	51	123	59	222	27	46	16	229	72	10	55	72	66	34	84
	133.5%	150.0%	113.3%	133.7%	134.1%	133.7%	192.9%	121.1%	106.7%	137.1%	128.6%	100.0%	107.8%	130.9%	143.5%	109.7%	168.0%

Figure 5C-2: Percentage of Purchasers who Recall the Last Brand of Houseplant Insecticide they Purchased, 2001 to 2011



PRODUCT FORM

Aerosols, liquid concentrates, and ready-to-use (RTU) products were the most common product forms of houseplant insecticides used, with 33%, 24%, and 22% respondents, respectively, reporting their purchase. Aerosols are most popular in the West, while RTU products with applicators are used more in the Northeast.

Table 5C-3: Houseplant Insecticides - What Form Was The Product? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	317	69*	62*	125	61*	235	17**	46*	19**	229	70*	18**	71*	73*	59*	48*	66*
Don't know	27	5	6	12	4	25	1	1	0	24	1	2	8	3	4	7	5
	8.5%	7.2%	9.7%	9.6%	6.6%	10.6%	5.9%	2.2%	-	10.5%	1.4%	11.1%	11.3%	4.1%	6.8%	14.6%	7.6%
						h				K						N	
Total answering	290	64*	56*	113	57*	210	16**	45*	19**	205	69*	16**	63*	70*	55*	41*	61*
Aerosol spray	97	20	14	36	27	70	6	16	5	67	24	6	26	20	17	14	20
	33.4%	31.3%	25.0%	31.9%	47.4%	33.3%	37.5%	35.6%	26.3%	32.7%	34.8%	37.5%	41.3%	28.6%	30.9%	34.1%	32.8%
					bCd												
Dust	44	10	8	21	5	32	2	6	4	34	8	2	6	8	12	5	13
	15.2%	15.6%	14.3%	18.6%	8.8%	15.2%	12.5%	13.3%	21.1%	16.6%	11.6%	12.5%	9.5%	11.4%	21.8%	12.2%	21.3%
				e											m		m
Granules	35	8	6	16	5	24	4	5	2	26	9	0	3	10	7	2	13
	12.1%	12.5%	10.7%	14.2%	8.8%	11.4%	25.0%	11.1%	10.5%	12.7%	13.0%	-	4.8%	14.3%	12.7%	4.9%	21.3%
														m			MP
Liquid concentrate	70	20	15	22	13	48	8	10	4	51	17	2	14	18	9	7	22
	24.1%	31.3%	26.8%	19.5%	22.8%	22.9%	50.0%	22.2%	21.1%	24.9%	24.6%	12.5%	22.2%	25.7%	16.4%	17.1%	36.1%
		d															mOP
Ready-to-use (RTU) liquid with applicator	64	20	10	27	7	50	3	9	2	47	16	1	9	19	13	9	14
	22.1%	31.3%	17.9%	23.9%	12.3%	23.8%	18.8%	20.0%	10.5%	22.9%	23.2%	6.3%	14.3%	27.1%	23.6%	22.0%	23.0%
		cE		e										m			
RTU liquid without applicator	13	6	1	4	2	10	1	2	0	10	2	1	0	3	4	3	3
	4.5%	9.4%	1.8%	3.5%	3.5%	4.8%	6.3%	4.4%	-	4.9%	2.9%	6.3%	-	4.3%	7.3%	7.3%	4.9%
		c													M	M	m
Spike	18	5	6	4	3	13	1	4	0	14	2	2	4	4	5	4	1
	6.2%	7.8%	10.7%	3.5%	5.3%	6.2%	6.3%	8.9%	-	6.8%	2.9%	12.5%	6.3%	5.7%	9.1%	9.8%	1.6%
			d												q	q	
Water soluble powder	19	2	1	12	4	13	1	3	2	16	1	2	5	3	4	1	6
	6.6%	3.1%	1.8%	10.6%	7.0%	6.2%	6.3%	6.7%	10.5%	7.8%	1.4%	12.5%	7.9%	4.3%	7.3%	2.4%	9.8%
				bC						k							
Other	6	0	2	4	0	2	1	2	1	4	1	1	1	3	1	1	0
	2.1%	-	3.6%	3.5%	-	1.0%	6.3%	4.4%	5.3%	2.0%	1.4%	6.3%	1.6%	4.3%	1.8%	2.4%	-
								f									
Sigma	366	91	63	146	66	262	27	57	20	269	80	17	68	88	72	46	92
	126.2%	142.2%	112.5%	129.2%	115.8%	124.8%	168.8%	126.7%	105.3%	131.2%	115.9%	106.3%	107.9%	125.7%	130.9%	112.2%	150.8%

RETAIL OUTLET

Houseplant insecticides are most frequently purchased at discount or mass-merchandise stores, accounting for 34% of the responses in 2011, a decrease from 41% in 2009. Purchases at home improvement centers are reported at 30% in 2011, the same as in 2009. Purchases at discount or mass-merchandise stores are greater among respondents with lower income levels, while purchases at home improvement centers are higher among the middle and high income levels.

PRODUCT USAGE

Houseplant insecticides are used to control many different pests, including white flies/flies, aphids, and spider mites/mites. Control of spider mites/mites is the highest with 41% of respondents reporting using the product for this purpose. Houseplant insecticides are commonly used to treat more than one type of pest.

Table 5C-4: Houseplant Insecticides - Place Product Purchased Most Often? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	317	69*	62*	125	61*	235	17**	46*	19**	229	70*	18**	71*	73*	59*	48*	66*
Don't know	20	4	5	8	3	15	1	2	2	16	2	2	9	2	2	2	5
	6.3%	5.8%	8.1%	6.4%	4.9%	6.4%	5.9%	4.3%	10.5%	7.0%	2.9%	11.1%	12.7%	2.7%	3.4%	4.2%	7.6%
													No				
Total answering	297	65*	57*	117	58*	220	16**	44*	17**	213	68*	16**	62*	71*	57*	46*	61*
Discount/mass merchandise store (e.g. Walmart, Kmart)	102	20	22	46	14	64	5	22	11	63	29	10	27	32	20	14	9
	34.3%	30.8%	38.6%	39.3%	24.1%	29.1%	31.3%	50.0%	64.7%	29.6%	42.6%	62.5%	43.5%	45.1%	35.1%	30.4%	14.8%
			e	E				F			J		Q	Q	Q	q	
Lawn and garden center/nursery	30	6	6	14	4	21	3	4	2	26	4	0	4	8	3	10	5
	10.1%	9.2%	10.5%	12.0%	6.9%	9.5%	18.8%	9.1%	11.8%	12.2%	5.9%	-	6.5%	11.3%	5.3%	21.7%	8.2%
																MOQ	
Supermarket/grocery store	21	6	3	1	11	17	0	3	1	16	5	0	2	2	6	6	5
	7.1%	9.2%	5.3%	0.9%	19.0%	7.7%	-	6.8%	5.9%	7.5%	7.4%	-	3.2%	2.8%	10.5%	13.0%	8.2%
		D	d		CD										n	mN	
Home improvement center (e.g. Home Depot, Lowes)	89	18	19	35	17	75	3	10	1	68	17	4	14	18	19	11	27
	30.0%	27.7%	33.3%	29.9%	29.3%	34.1%	18.8%	22.7%	5.9%	31.9%	25.0%	25.0%	22.6%	25.4%	33.3%	23.9%	44.3%
																	MNP
Hardware store (e.g. True Value)	13	3	2	4	4	10	0	3	0	10	3	0	3	2	4	1	3
	4.4%	4.6%	3.5%	3.4%	6.9%	4.5%	-	6.8%	-	4.7%	4.4%	-	4.8%	2.8%	7.0%	2.2%	4.9%
Farm supply store	10	2	2	5	1	7	1	1	1	7	2	1	3	2	0	2	3
	3.4%	3.1%	3.5%	4.3%	1.7%	3.2%	6.3%	2.3%	5.9%	3.3%	2.9%	6.3%	4.8%	2.8%	-	4.3%	4.9%
													o				o
Mail order/catalog	7	1	2	3	1	5	1	1	0	6	1	0	1	3	1	0	2
	2.4%	1.5%	3.5%	2.6%	1.7%	2.3%	6.3%	2.3%	-	2.8%	1.5%	-	1.6%	4.2%	1.8%	-	3.3%
Warehouse/wholesale club	17	8	0	7	2	13	3	0	1	13	4	0	5	3	2	0	7
	5.7%	12.3%	-	6.0%	3.4%	5.9%	18.8%	-	5.9%	6.1%	5.9%	-	8.1%	4.2%	3.5%	-	11.5%
		Ce		c									p				P
Other	8	1	1	2	4	8	0	0	0	4	3	1	3	1	2	2	0
	2.7%	1.5%	1.8%	1.7%	6.9%	3.6%	-	-	-	1.9%	4.4%	6.3%	4.8%	1.4%	3.5%	4.3%	-
					d								q				
Sigma	297	65	57	117	58	220	16	44	17	213	68	16	62	71	57	46	61
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Kline

Table 5C-5: Houseplant Insecticides - What Problem Were You Trying To Eliminate? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	317	69*	62*	125	61*	235	17**	46*	19**	229	70*	18**	71*	73*	59*	48*	66*
Don't know	46	7	8	22	9	37	2	4	3	35	8	3	10	12	7	8	9
	14.5%	10.1%	12.9%	17.6%	14.8%	15.7%	11.8%	8.7%	15.8%	15.3%	11.4%	16.7%	14.1%	16.4%	11.9%	16.7%	13.6%
Total answering	271	62*	54*	103	52*	198	15**	42*	16**	194	62*	15**	61*	61*	52*	40*	57*
Mites	89	23	18	34	14	63	4	17	5	66	17	6	26	13	18	7	25
	32.8%	37.1%	33.3%	33.0%	26.9%	31.8%	26.7%	40.5%	31.3%	34.0%	27.4%	40.0%	42.6%	21.3%	34.6%	17.5%	43.9%
													NP		p		NP
Spider Mites	110	24	23	44	19	85	6	15	4	82	25	3	22	30	18	13	27
	40.6%	38.7%	42.6%	42.7%	36.5%	42.9%	40.0%	35.7%	25.0%	42.3%	40.3%	20.0%	36.1%	49.2%	34.6%	32.5%	47.4%
White Flies, Flies	103	23	22	41	17	72	8	17	6	72	24	7	20	32	23	8	20
	38.0%	37.1%	40.7%	39.8%	32.7%	36.4%	53.3%	40.5%	37.5%	37.1%	38.7%	46.7%	32.8%	52.5%	44.2%	20.0%	35.1%
														MPq	P		
Aphids	94	21	17	34	22	74	4	12	4	62	28	4	20	20	19	13	22
	34.7%	33.9%	31.5%	33.0%	42.3%	37.4%	26.7%	28.6%	25.0%	32.0%	45.2%	26.7%	32.8%	32.8%	36.5%	32.5%	38.6%
											j						
Mealy bugs	49	15	9	19	6	36	4	8	1	36	10	3	13	11	7	6	12
	18.1%	24.2%	16.7%	18.4%	11.5%	18.2%	26.7%	19.0%	6.3%	18.6%	16.1%	20.0%	21.3%	18.0%	13.5%	15.0%	21.1%
		e															
Scale	17	2	3	10	2	13	2	0	2	11	6	0	2	2	4	3	6
	6.3%	3.2%	5.6%	9.7%	3.8%	6.6%	13.3%	-	12.5%	5.7%	9.7%	-	3.3%	3.3%	7.7%	7.5%	10.5%
						h											
Other	12	2	3	5	2	7	2	1	2	10	1	1	0	5	3	3	1
	4.4%	3.2%	5.6%	4.9%	3.8%	3.5%	13.3%	2.4%	12.5%	5.2%	1.6%	6.7%	-	8.2%	5.8%	7.5%	1.8%
														M	m	M	
Sigma	474	110	95	187	82	350	30	70	24	339	111	24	103	113	92	53	113
	174.9%	177.4%	175.9%	181.6%	157.7%	176.8%	200.0%	166.7%	150.0%	174.7%	179.0%	160.0%	168.9%	185.2%	176.9%	132.5%	198.2%

Houseplant Insecticides

5D. HOUSEHOLD INSECTICIDES

OVERVIEW

Overall, approximately 40% of the respondents report purchasing household insecticides in 2011, an increase from 37% in 2009. Forty-four percent of the analyzed respondents indicate that they did not use household insecticides in 2011, the same as in 2009.

Table 5D-1: Household Insecticides - When Last Bought?

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Base: Total Respondents	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
Total answering	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
One year ago or less (net)	627	127	125	269	106	481	33	75	38	457	129	41	138	167	124	93	105
	40.4%	41.8%	34.1%	49.0%	31.9%	41.0%	41.3%	34.9%	45.2%	40.2%	42.0%	37.6%	36.5%	40.5%	45.6%	37.7%	43.2%
		CE		BCE		h			h						Mp		m
Less than 6 months ago	297	63	47	136	51	223	14	39	21	203	74	20	61	83	62	43	48
	19.1%	20.7%	12.8%	24.8%	15.4%	19.0%	17.5%	18.1%	25.0%	17.9%	24.1%	18.3%	16.1%	20.1%	22.8%	17.4%	19.8%
		Ce		CE							J				M		
6 months to 1 year ago	330	64	78	133	55	258	19	36	17	254	55	21	77	84	62	50	57
	21.3%	21.1%	21.3%	24.2%	16.6%	22.0%	23.8%	16.7%	20.2%	22.4%	17.9%	19.3%	20.4%	20.4%	22.8%	20.2%	23.5%
				E		h				k							
More than 1 year ago	242	41	52	95	54	185	14	30	13	180	41	21	58	66	43	39	36
	15.6%	13.5%	14.2%	17.3%	16.3%	15.8%	17.5%	14.0%	15.5%	15.8%	13.4%	19.3%	15.3%	16.0%	15.8%	15.8%	14.8%
Do not use product	683	136	190	185	172	507	33	110	33	499	137	47	182	179	105	115	102
	44.0%	44.7%	51.8%	33.7%	51.8%	43.2%	41.3%	51.2%	39.3%	43.9%	44.6%	43.1%	48.1%	43.4%	38.6%	46.6%	42.0%
		D	bD		bD			Fi					O			o	
Sigma	1,552	304	367	549	332	1,173	80	215	84	1,136	307	109	378	412	272	247	243
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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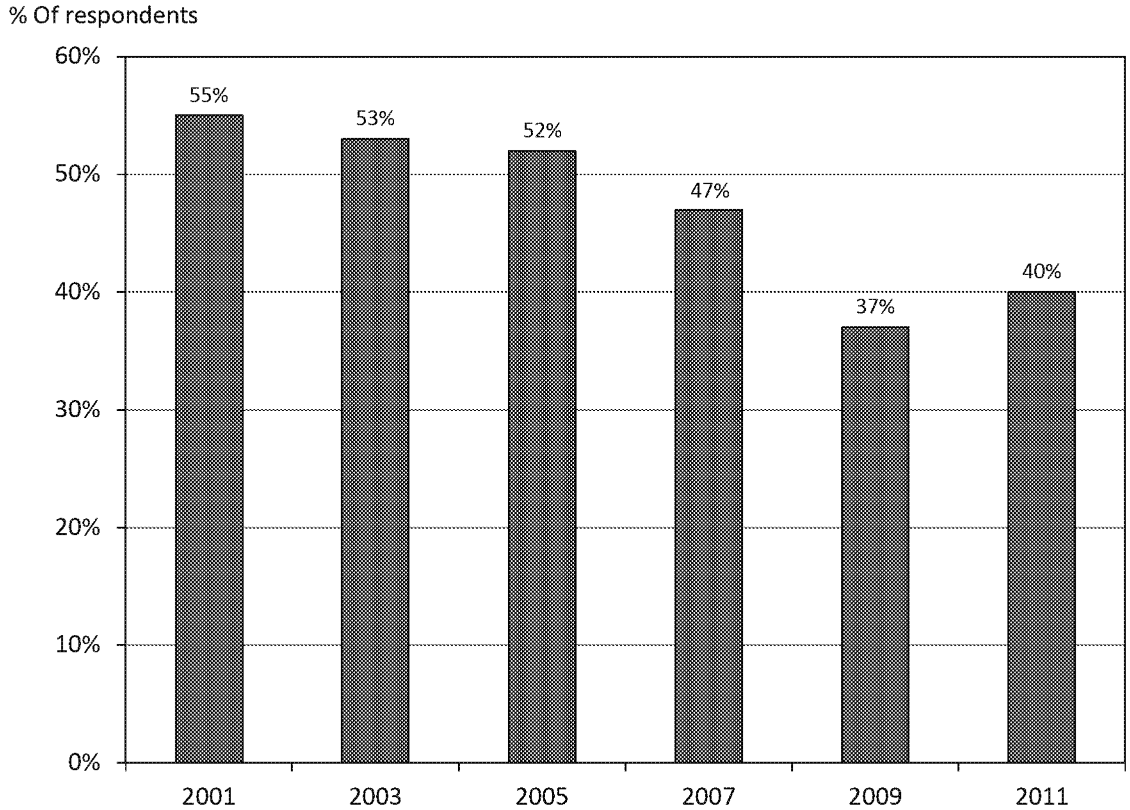
Figure 5D-1: Percentage of Respondents who Purchased Household Insecticides During the Last 12 Months, 2001 to 2011



GEOGRAPHIC REGION

Household insecticides are used in varying degrees across the United States, with respondents in the South reporting the greatest incidence of purchase in 2011 with 49%. Respondents in the West report the lowest incidence of purchase during the time period with 32%.

POPULATION DENSITY

There was not a significant difference between respondents in rural, urban, and suburban area with all reporting between 38% and 42% purchasing in 2011.

FAMILY INCOME

Respondents with an income between $50,000 and $75,000 were more likely to use household insecticides than those at other income levels in 2011. Respondents with an income lower than $25,000 used household insecticides the least with 37% reporting usage.

BRAND RECOLLECTION

Thirty-eight percent of the respondents identify Raid as the brand of household insecticide they most recently purchased, with 25% attributable to Raid Ant & Roach Killer and 7% attributable to Raid Ant Bait. Ortho is the second largest identified brand with 22.3% of responses, with Ortho Home Defense Max accounting for 16% of responses. Black Flag brands rank third with 21.6% of the responses, broken down as follows: Black Flag Ant Roach & Spider Killer, 15%, and Black Flag Extreme Home Insect Control, 8%. Hot Shot ranked forth with 19% or responses, with Hot Shot Flying Insect Killer being the leading product with 8%.

Table 5D-2. Household Insecticides - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	627	127	125	269	106	481	33*	75*	38*	457	129	41*	138	167	124	93*	105
Don't know	53	13	14	17	9	40	4	8	1	43	9	1	9	16	9	11	8
	8.5%	10.2%	11.2%	6.3%	8.5%	8.3%	12.1%	10.7%	2.6%	9.4%	7.0%	2.4%	6.5%	9.6%	7.3%	11.8%	7.6%
			d														
Total answering	574	114	111	252	97*	441	29**	67*	37*	414	120	40*	129	151	115	82*	97*
Bayer (Net)	66	18	15	26	7	45	8	10	3	46	20	0	12	8	19	11	16
	11.5%	15.8%	13.5%	10.3%	7.2%	10.2%	27.6%	14.9%	8.1%	11.1%	16.7%	-	9.3%	5.3%	16.5%	13.4%	16.5%
		e								L	L				mN	N	N
Bayer Advanced Home Pest Control	52	12	12	21	7	38	6	6	2	33	19	0	10	4	18	9	11
	9.1%	10.5%	10.8%	8.3%	7.2%	8.6%	20.7%	9.0%	5.4%	8.0%	15.8%	-	7.8%	2.6%	15.7%	11.0%	11.3%
										l	JL		n		mN	N	N
Bayer Advanced Natria Home Pest Control	21	9	3	8	1	11	5	4	1	18	3	0	3	5	2	3	8
	3.7%	7.9%	2.7%	3.2%	1.0%	2.5%	17.2%	6.0%	2.7%	4.3%	2.5%	-	2.3%	3.3%	1.7%	3.7%	8.2%
		cDE															MnO
Bengal (Net)	36	9	4	16	7	21	5	8	2	29	7	0	5	12	3	1	15
	6.3%	7.9%	3.6%	6.3%	7.2%	4.8%	17.2%	11.9%	5.4%	7.0%	5.8%	-	3.9%	7.9%	2.6%	1.2%	15.5%
								F		l				oP			MnOP
Bengal Insecticide Concentrate	22	5	3	9	5	13	3	4	2	16	6	0	3	4	2	1	12
	3.8%	4.4%	2.7%	3.6%	5.2%	2.9%	10.3%	6.0%	5.4%	3.9%	5.0%	-	2.3%	2.6%	1.7%	1.2%	12.4%
																	MNOP
Bengal Kitchen and Bathroom Bug Killer	20	7	1	9	3	12	4	4	0	16	4	0	2	9	2	0	7
	3.5%	6.1%	0.9%	3.6%	3.1%	2.7%	13.8%	6.0%	-	3.9%	3.3%	-	1.6%	6.0%	1.7%	-	7.2%
		C												moP			MoP
Black Flag (Net)	124	22	21	55	26	95	7	13	9	90	25	9	26	38	32	13	15
	21.6%	19.3%	18.9%	21.8%	26.8%	21.5%	24.1%	19.4%	24.3%	21.7%	20.8%	22.5%	20.2%	25.2%	27.8%	15.9%	15.5%
														q	pQ		
Black Flag Ant Roach & Spider Killer	88	15	14	39	20	64	4	12	8	62	19	7	22	24	21	10	11
	15.3%	13.2%	12.6%	15.5%	20.6%	14.5%	13.8%	17.9%	21.6%	15.0%	15.8%	17.5%	17.1%	15.9%	18.3%	12.2%	11.3%
Black Flag Extreme Home Insect Control	46	9	7	19	11	39	4	2	1	36	8	2	6	16	14	4	6
	8.0%	7.9%	6.3%	7.5%	11.3%	8.8%	13.8%	3.0%	2.7%	8.7%	6.7%	5.0%	4.7%	10.6%	12.2%	4.9%	6.2%
														m	Mp		

(Continued)

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Table 5D-2: Household Insecticides - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Bonide	10	2	0	5	3	6	1	1	2	9	1	0	2	2	1	2	3
	1.7%	1.8%	-	2.0%	3.1%	1.4%	3.4%	1.5%	5.4%	2.2%	0.8%	-	1.6%	1.3%	0.9%	2.4%	3.1%
					c				f								
Combat (Net)	97	22	23	41	11	71	7	13	6	71	19	7	25	29	26	7	10
	16.9%	19.3%	20.7%	16.3%	11.3%	16.1%	24.1%	19.4%	16.2%	17.1%	15.8%	17.5%	19.4%	19.2%	22.6%	8.5%	10.3%
			e										Pq	Pq	PQ		
Combat Ant Bait Station	60	15	16	23	6	46	4	6	4	42	13	5	16	20	15	3	6
	10.5%	13.2%	14.4%	9.1%	6.2%	10.4%	13.8%	9.0%	10.8%	10.1%	10.8%	12.5%	12.4%	13.2%	13.0%	3.7%	6.2%
		e	e										P	Pq	Pq		
Combat Ant Gel	22	4	7	8	3	17	0	5	0	14	7	1	5	5	7	2	3
	3.8%	3.5%	6.3%	3.2%	3.1%	3.9%	-	7.5%	-	3.4%	5.8%	2.5%	3.9%	3.3%	6.1%	2.4%	3.1%
								i									
Combat Roach Gel	21	7	5	7	2	12	3	4	2	16	4	1	6	4	6	2	3
	3.7%	6.1%	4.5%	2.8%	2.1%	2.7%	10.3%	6.0%	5.4%	3.9%	3.3%	2.5%	4.7%	2.6%	5.2%	2.4%	3.1%
Combat Roach Station	20	4	2	11	3	12	1	4	3	13	6	1	6	7	3	2	2
	3.5%	3.5%	1.8%	4.4%	3.1%	2.7%	3.4%	6.0%	8.1%	3.1%	5.0%	2.5%	4.7%	4.6%	2.6%	2.4%	2.1%
									f								
Combat OTHER (Please Specify)	1	0	1	0	0	1	0	0	0	1	0	0	1	0	0	0	0
	0.2%	-	0.9%	-	-	0.2%	-	-	-	0.2%	-	-	0.8%	-	-	-	-
Concern Home Pest Control	1	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	1
	0.2%	-	-	0.4%	-	0.2%	-	-	-	-	0.8%	-	-	-	-	-	1.0%
											j						
Enforcer (Net)	24	4	5	13	2	17	5	0	2	17	5	2	5	7	5	4	3
	4.2%	3.5%	4.5%	5.2%	2.1%	3.9%	17.2%	-	5.4%	4.1%	4.2%	5.0%	3.9%	4.6%	4.3%	4.9%	3.1%
									h								
Enforcer Home Pest Control	10	2	3	5	0	7	2	0	1	7	3	0	2	4	1	2	1
	1.7%	1.8%	2.7%	2.0%	-	1.6%	6.9%	-	2.7%	1.7%	2.5%	-	1.6%	2.6%	0.9%	2.4%	1.0%
Enforcer Overnite	4	0	0	3	1	4	0	0	0	2	1	1	0	1	2	0	1
	0.7%	-	-	1.2%	1.0%	0.9%	-	-	-	0.5%	0.8%	2.5%	-	0.7%	1.7%	-	1.0%
Enforcer RoachMax	9	2	1	5	1	5	3	0	1	7	1	1	0	2	4	0	3
	1.6%	1.8%	0.9%	2.0%	1.0%	1.1%	10.3%	-	2.7%	1.7%	0.8%	2.5%	-	1.3%	3.5%	-	3.1%
															Mp		M

(Continued)

Table 5D-2. Household Insecticides - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Enforcer Flea Spray	10	3	1	5	1	7	3	0	0	6	3	1	3	1	2	2	2
	1.7%	2.6%	0.9%	2.0%	1.0%	1.6%	10.3%	-	-	1.4%	2.5%	2.5%	2.3%	0.7%	1.7%	2.4%	2.1%
Grants Kills Ants	13	1	1	4	7	9	0	2	2	10	2	1	3	3	5	1	1
	2.3%	0.9%	0.9%	1.6%	7.2%	2.0%	-	3.0%	5.4%	2.4%	1.7%	2.5%	2.3%	2.0%	4.3%	1.2%	1.0%
					BCD												
Hot Shot (Net)	110	18	15	63	14	81	5	12	12	68	30	12	29	32	20	14	15
	19.2%	15.8%	13.5%	25.0%	14.4%	18.4%	17.2%	17.9%	32.4%	16.4%	25.0%	30.0%	22.5%	21.2%	17.4%	17.1%	15.5%
				bCE					Fh		J	J					
Hot Shot Ant Killer	32	6	5	16	5	27	1	1	3	22	6	4	6	10	9	4	3
	5.6%	5.3%	4.5%	6.3%	5.2%	6.1%	3.4%	1.5%	8.1%	5.3%	5.0%	10.0%	4.7%	6.6%	7.8%	4.9%	3.1%
									h								
Hot Shot Fogger	34	6	6	20	2	27	2	3	2	18	14	2	10	7	7	3	7
	5.9%	5.3%	5.4%	7.9%	2.1%	6.1%	6.9%	4.5%	5.4%	4.3%	11.7%	5.0%	7.8%	4.6%	6.1%	3.7%	7.2%
				E							J						
Hot Shot Flying Insect	46	6	4	29	7	30	3	6	7	27	14	5	9	15	9	6	7
	8.0%	5.3%	3.6%	11.5%	7.2%	6.8%	10.3%	9.0%	18.9%	6.5%	11.7%	12.5%	7.0%	9.9%	7.8%	7.3%	7.2%
				bC					F		j						
Hot Shot MaxAttrax Ant	4	1	0	3	0	2	1	0	1	4	0	0	2	0	0	1	1
	0.7%	0.9%	-	1.2%	-	0.5%	3.4%	-	2.7%	1.0%	-	-	1.6%	-	-	1.2%	1.0%
									f								
Hot Shot MaxAttrax Roach	6	1	0	4	1	5	0	0	1	5	1	0	3	1	1	1	0
	1.0%	0.9%	-	1.6%	1.0%	1.1%	-	-	2.7%	1.2%	0.8%	-	2.3%	0.7%	0.9%	1.2%	-
Hot Shot OTHER (Please Specify)	6	0	2	3	1	2	0	3	1	4	0	2	2	3	1	0	0
	1.0%	-	1.8%	1.2%	1.0%	0.5%	-	4.5%	2.7%	1.0%	-	5.0%	1.6%	2.0%	0.9%	-	-
								F	f			JK					
Ortho (Net)	128	29	30	44	25	105	4	10	9	93	29	6	26	35	24	24	19
	22.3%	25.4%	27.0%	17.5%	25.8%	23.8%	13.8%	14.9%	24.3%	22.5%	24.2%	15.0%	20.2%	23.2%	20.9%	29.3%	19.6%
		d	D		d												
Ortho Ant-B-Gon Bait	5	1	0	1	3	5	0	0	0	2	3	0	0	2	3	0	0
	0.9%	0.9%	-	0.4%	3.1%	1.1%	-	-	-	0.5%	2.5%	-	-	1.3%	2.6%	-	-
					cD						J				m		

(Continued)

Kline

Table 5D-2: Household Insecticides - Brand Last Purchased? Base: Bought Within Last Year

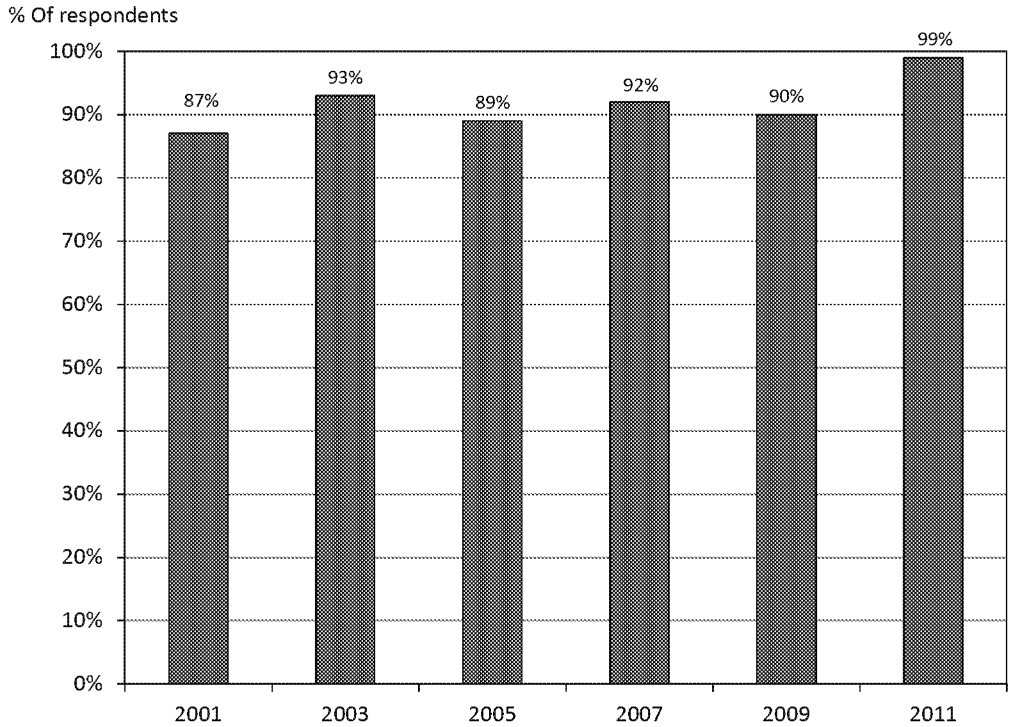
		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Ortho Flying Insect Killer	25	10	2	7	6	23	0	1	1	17	5	3	5	6	6	5	3
	4.4%	8.8%	1.8%	2.8%	6.2%	5.2%	-	1.5%	2.7%	4.1%	4.2%	7.5%	3.9%	4.0%	5.2%	6.1%	3.1%
		CD															
Ortho Home Defense Max	92	19	26	32	15	76	2	6	8	65	23	4	18	26	16	17	15
	16.0%	16.7%	23.4%	12.7%	15.5%	17.2%	6.9%	9.0%	21.6%	15.7%	19.2%	10.0%	14.0%	17.2%	13.9%	20.7%	15.5%
			D			h			h								
Ortho Roach, Ant & Spider	14	2	4	6	2	9	1	4	0	12	2	0	4	0	6	2	2
	2.4%	1.8%	3.6%	2.4%	2.1%	2.0%	3.4%	6.0%	-	2.9%	1.7%	-	3.1%	-	5.2%	2.4%	2.1%
								f					N		N	n	n
Ortho OTHER (Please Specify)	2	0	0	2	0	1	1	0	0	2	0	0	0	2	0	0	0
	0.3%	-	-	0.8%	-	0.2%	3.4%	-	-	0.5%	-	-	-	1.3%	-	-	-
Raid (Net)	218	45	33	100	40	169	8	29	12	164	38	16	59	55	39	29	36
	38.0%	39.5%	29.7%	39.7%	41.2%	38.3%	27.6%	43.3%	32.4%	39.6%	31.7%	40.0%	45.7%	36.4%	33.9%	35.4%	37.1%
				c	c								o				
Raid Ant Bait	39	12	8	13	6	33	1	3	2	31	4	4	10	7	7	5	10
	6.8%	10.5%	7.2%	5.2%	6.2%	7.5%	3.4%	4.5%	5.4%	7.5%	3.3%	10.0%	7.8%	4.6%	6.1%	6.1%	10.3%
		d										k					n
Raid Ant & Roach Killer	142	23	23	67	29	108	3	21	10	104	27	11	37	37	28	18	22
	24.7%	20.2%	20.7%	26.6%	29.9%	24.5%	10.3%	31.3%	27.0%	25.1%	22.5%	27.5%	28.7%	24.5%	24.3%	22.0%	22.7%
Raid Earth Options	9	2	0	5	2	7	1	1	0	6	2	1	2	1	3	1	2
	1.6%	1.8%	-	2.0%	2.1%	1.6%	3.4%	1.5%	-	1.4%	1.7%	2.5%	1.6%	0.7%	2.6%	1.2%	2.1%
Raid Double Control	12	2	2	6	2	11	1	0	0	10	2	0	2	2	5	1	2
	2.1%	1.8%	1.8%	2.4%	2.1%	2.5%	3.4%	-	-	2.4%	1.7%	-	1.6%	1.3%	4.3%	1.2%	2.1%
Raid Max Roach Killer	25	5	0	18	2	18	0	6	1	19	5	1	4	6	8	5	2
	4.4%	4.4%	-	7.1%	2.1%	4.1%	-	9.0%	2.7%	4.6%	4.2%	2.5%	3.1%	4.0%	7.0%	6.1%	2.1%
		C		Ce				f							q		
Raid Flea Killer	23	4	1	15	3	16	2	4	1	20	3	0	13	4	5	1	0
	4.0%	3.5%	0.9%	6.0%	3.1%	3.6%	6.9%	6.0%	2.7%	4.8%	2.5%	-	10.1%	2.6%	4.3%	1.2%	-
				C									NoPQ		Q		
Raid OTHER (Please Specify)	22	4	4	12	2	19	0	2	1	17	3	2	5	7	4	0	6
	3.8%	3.5%	3.6%	4.8%	2.1%	4.3%	-	3.0%	2.7%	4.1%	2.5%	5.0%	3.9%	4.6%	3.5%	-	6.2%
													p	P	p		P

(Continued)

Household Insecticides

Table 5D-2. Household Insecticides - Brand Last Purchased? Base: Bought Within Last Year																	
		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Roach Prufe	1	0	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0
	0.2%	-	-	0.4%	-	0.2%	-	-	-	-	-	2.5%	-	0.7%	-	-	-
												Jk					
Spectracide Bug Stop	26	1	4	19	2	21	0	1	4	15	7	4	8	7	5	2	4
	4.5%	0.9%	3.6%	7.5%	2.1%	4.8%	-	1.5%	10.8%	3.6%	5.8%	10.0%	6.2%	4.6%	4.3%	2.4%	4.1%
				Be					H			j					
Termite Prufe	4	1	1	2	0	4	0	0	0	4	0	0	1	0	1	0	2
	0.7%	0.9%	0.9%	0.8%	-	0.9%	-	-	-	1.0%	-	-	0.8%	-	0.9%	-	2.1%
																	n
Terro (Net)	36	6	18	11	1	31	4	0	1	20	11	5	9	10	8	3	6
	6.3%	5.3%	16.2%	4.4%	1.0%	7.0%	13.8%	-	2.7%	4.8%	9.2%	12.5%	7.0%	6.6%	7.0%	3.7%	6.2%
		e	BDE			H					j	J					
Terro Multipurpose Insect Bait	7	2	2	3	0	4	2	0	1	4	2	1	2	1	3	0	1
	1.2%	1.8%	1.8%	1.2%	-	0.9%	6.9%	-	2.7%	1.0%	1.7%	2.5%	1.6%	0.7%	2.6%	-	1.0%
Terro Ant Killer Ultra Kill	29	4	16	8	1	27	2	0	0	16	9	4	7	9	5	3	5
	5.1%	3.5%	14.4%	3.2%	1.0%	6.1%	6.9%	-	-	3.9%	7.5%	10.0%	5.4%	6.0%	4.3%	3.7%	5.2%
			BDE			H					j	j					
Victor Poison Free Ant & Roach	1	0	1	0	0	1	0	0	0	1	0	0	0	0	1	0	0
	0.2%	-	0.9%	-	-	0.2%	-	-	-	0.2%	-	-	-	-	0.9%	-	-
Other	24	1	5	13	5	14	2	7	1	20	0	4	3	8	6	3	4
	4.2%	0.9%	4.5%	5.2%	5.2%	3.2%	6.9%	10.4%	2.7%	4.8%	-	10.0%	2.3%	5.3%	5.2%	3.7%	4.1%
			b	B	b			F		K		K					
Sigma	1060	210	193	487	170	795	68	123	74	753	233	74	243	273	244	121	179
	184.7%	184.2%	173.9%	193.3%	175.3%	180.3%	234.5%	183.6%	200.0%	181.9%	194.2%	185.0%	188.4%	180.8%	212.2%	147.6%	184.5%

Figure 5D-2: Percentage of Purchasers Who Recall the Last Brand of Household Insecticide they Purchased, 2001 to 2011



PRODUCT FORM

Aerosols account for the majority of household insecticide purchases in 2011, with 58% of the respondents citing this product form, a decrease from the 70% reported in 2009. Ready-to-use (RTU) were the second most purchased product form accounting for 22% of the responses. Baits ranked third and accounted for 20% of the responses, down from 21% in 2009. Aerosol usage is consistent across the different regions and populations. Families with an income higher than $75,000 were less likely to purchase aerosols than families with an income lower than $75,000.

Table 5D-3: Household Insecticides - What Form was the Product? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	627	127	125	269	106	481	33*	75*	38*	457	129	41*	138	167	124	93*	105
Don't know	15	4	2	7	2	14	0	1	0	13	2	0	3	4	3	4	1
	2.4%	3.1%	1.6%	2.6%	1.9%	2.9%	-	1.3%	-	2.8%	1.6%	-	2.2%	2.4%	2.4%	4.3%	1.0%
Total answering	612	123	123	262	104	467	33*	74*	38*	444	127	41*	135	163	121	89*	104
Aerosol spray	357	71	64	158	64	271	20	39	27	251	82	24	84	101	77	48	47
	58.3%	57.7%	52.0%	60.3%	61.5%	58.0%	60.6%	52.7%	71.1%	56.5%	64.6%	58.5%	62.2%	62.0%	63.6%	53.9%	45.2%
									h				Q	Q	Q		
Baits	120	28	28	46	18	89	10	15	6	90	17	13	25	32	23	14	26
	19.6%	22.8%	22.8%	17.6%	17.3%	19.1%	30.3%	20.3%	15.8%	20.3%	13.4%	31.7%	18.5%	19.6%	19.0%	15.7%	25.0%
										k		jK					
Dust	48	10	4	28	6	35	2	8	3	37	8	3	4	11	16	2	15
	7.8%	8.1%	3.3%	10.7%	5.8%	7.5%	6.1%	10.8%	7.9%	8.3%	6.3%	7.3%	3.0%	6.7%	13.2%	2.2%	14.4%
				C											MnP		MNP
Granules	35	10	5	15	5	22	7	6	0	30	5	0	4	8	10	1	12
	5.7%	8.1%	4.1%	5.7%	4.8%	4.7%	21.2%	8.1%	-	6.8%	3.9%	-	3.0%	4.9%	8.3%	1.1%	11.5%
							FhI	i		l					mP		MNP
Liquid concentrate	67	13	11	35	8	50	7	5	5	50	14	3	14	17	12	10	14
	10.9%	10.6%	8.9%	13.4%	7.7%	10.7%	21.2%	6.8%	13.2%	11.3%	11.0%	7.3%	10.4%	10.4%	9.9%	11.2%	13.5%
							fH										
Ready-to-use (RTU) liquid with applicator	136	24	38	55	19	117	3	10	6	95	34	7	29	37	27	23	20
	22.2%	19.5%	30.9%	21.0%	18.3%	25.1%	9.1%	13.5%	15.8%	21.4%	26.8%	17.1%	21.5%	22.7%	22.3%	25.8%	19.2%
			BDE			GH											
RTU liquid without applicator	9	2	3	3	1	6	1	2	0	7	2	0	2	1	4	0	2
	1.5%	1.6%	2.4%	1.1%	1.0%	1.3%	3.0%	2.7%	-	1.6%	1.6%	-	1.5%	0.6%	3.3%	-	1.9%
															np		
Water soluble powder	16	4	3	7	2	12	3	1	0	13	2	1	3	5	5	0	3
	2.6%	3.3%	2.4%	2.7%	1.9%	2.6%	9.1%	1.4%	-	2.9%	1.6%	2.4%	2.2%	3.1%	4.1%	-	2.9%
							Fhi							p	p		
Other	17	2	6	6	3	13	0	4	0	15	1	1	1	5	5	2	4
	2.8%	1.6%	4.9%	2.3%	2.9%	2.8%	-	5.4%	-	3.4%	0.8%	2.4%	0.7%	3.1%	4.1%	2.2%	3.8%
															m		m
Sigma	805	164	162	353	126	615	53	90	47	588	165	52	166	217	179	100	143
	131.5%	133.3%	131.7%	134.7%	121.2%	131.7%	160.6%	121.6%	123.7%	132.4%	129.9%	126.8%	123.0%	133.1%	147.9%	112.4%	137.5%

Kline

RETAIL OUTLET

Household insecticides are most commonly purchased at discount or mass-merchandise stores, home improvement centers, or supermarket/grocery stores. Discount and mass-merchandise stores account for 43% of the responses in 2011, slightly lower than the 46% in 2009. Home improvement centers rand second and account for 29% of responses, a slight increase from 28% in 2009. Supermarkets account for 10%, slightly less than in 2009. All regions prefer discount or mass-merchandise stores to any other type of store, but purchases are higher in the Midwest than in other regions. Families with lower income are more likely to purchase from discount or mass merchandisers and families with higher income levels are who are more likely to purchase from home improvement centers.

PRODUCT USAGE

Household insecticides are generally purchased for more than one type of pest but are most frequently used for the control of ants, spiders, roaches, and flies, with 66%, 33%, 27%, and 19% of respondents, respectively, reporting using them to control above mentioned insects. Ants were the leading problem in all regions, with roaches being significantly higher in the South. Fire ants were reported to be a frequent pest in the South where 19% of respondents listed them.

Household Insecticides

Table 5D-4: Household Insecticides - Place Product Purchased Most Often? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	627	127	125	269	106	481	33*	75*	38*	457	129	41*	138	167	124	93*	105
Don't know	25	5	2	15	3	18	1	3	3	20	4	1	8	5	3	4	5
	4.0%	3.9%	1.6%	5.6%	2.8%	3.7%	3.0%	4.0%	7.9%	4.4%	3.1%	2.4%	5.8%	3.0%	2.4%	4.3%	4.8%
				c													
Total answering	602	122	123	254	103	463	32*	72*	35*	437	125	40*	130	162	121	89*	100
Discount/mass merchandise store (e.g. Walmart, Kmart)	261	52	67	112	30	197	11	34	19	176	60	25	68	79	56	36	22
	43.4%	42.6%	54.5%	44.1%	29.1%	42.5%	34.4%	47.2%	54.3%	40.3%	48.0%	62.5%	52.3%	48.8%	46.3%	40.4%	22.0%
		E	bdE	E								J	pQ	Q	Q	Q	
Lawn and garden center/nursery	27	3	2	15	7	21	2	3	1	22	3	2	4	6	6	7	4
	4.5%	2.5%	1.6%	5.9%	6.8%	4.5%	6.3%	4.2%	2.9%	5.0%	2.4%	5.0%	3.1%	3.7%	5.0%	7.9%	4.0%
				c	C												
Supermarket/grocery store	58	11	3	23	21	41	1	15	1	48	5	5	13	15	6	11	13
	9.6%	9.0%	2.4%	9.1%	20.4%	8.9%	3.1%	20.8%	2.9%	11.0%	4.0%	12.5%	10.0%	9.3%	5.0%	12.4%	13.0%
		C		C	BCD			FGI		K		k				o	O
Home improvement center (e.g. Home Depot, Lowes)	176	36	33	81	26	138	11	15	12	137	35	4	24	44	38	27	43
	29.2%	29.5%	26.8%	31.9%	25.2%	29.8%	34.4%	20.8%	34.3%	31.4%	28.0%	10.0%	18.5%	27.2%	31.4%	30.3%	43.0%
										L	L			m	M	M	MNop
Hardware store (e.g. True Value)	33	9	7	9	8	29	3	1	0	22	10	1	8	6	11	0	8
	5.5%	7.4%	5.7%	3.5%	7.8%	6.3%	9.4%	1.4%	-	5.0%	8.0%	2.5%	6.2%	3.7%	9.1%	-	8.0%
					d	h	hi						P	p	nP		P
Farm supply store	8	0	4	3	1	6	0	2	0	4	2	2	5	1	0	0	2
	1.3%	-	3.3%	1.2%	1.0%	1.3%	-	2.8%	-	0.9%	1.6%	5.0%	3.8%	0.6%	-	-	2.0%
			B									J	nOp				
Mail order/catalog	9	3	2	0	4	8	0	1	0	8	1	0	3	1	0	2	3
	1.5%	2.5%	1.6%	-	3.9%	1.7%	-	1.4%	-	1.8%	0.8%	-	2.3%	0.6%	-	2.2%	3.0%
		D	D		D								o			o	o
Warehouse/wholesale club	15	6	1	6	2	11	2	0	2	8	7	0	2	8	0	2	3
	2.5%	4.9%	0.8%	2.4%	1.9%	2.4%	6.3%	-	5.7%	1.8%	5.6%	-	1.5%	4.9%	-	2.2%	3.0%
		c					H		H		J			O		o	o
Other	15	2	4	5	4	12	2	1	0	12	2	1	3	2	4	4	2
	2.5%	1.6%	3.3%	2.0%	3.9%	2.6%	6.3%	1.4%	-	2.7%	1.6%	2.5%	2.3%	1.2%	3.3%	4.5%	2.0%
Sigma	602	122	123	254	103	463	32	72	35	437	125	40	130	162	121	89	100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Kline

Table 5D-5. Household Insecticides - What Pests Were You Trying To Get Rid Of? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	627	127	125	269	106	481	33*	75*	38*	457	129	41*	138	167	124	93*	105
Don't know	13	4	1	6	2	10	0	3	0	12	1	0	2	4	2	3	2
	2.1%	3.1%	0.8%	2.2%	1.9%	2.1%	-	4.0%	-	2.6%	0.8%	-	1.4%	2.4%	1.6%	3.2%	1.9%
Total answering	614	123	124	263	104	471	33*	72*	38*	445	128	41*	136	163	122	90*	103
Ants	404	84	90	168	62	320	18	37	29	288	88	28	93	109	80	57	65
	65.8%	68.3%	72.6%	63.9%	59.6%	67.9%	54.5%	51.4%	76.3%	64.7%	68.8%	68.3%	68.4%	66.9%	65.6%	63.3%	63.1%
			dE			H			gH								
Fire ants	78	9	10	50	9	58	6	4	10	55	18	5	23	21	11	8	15
	12.7%	7.3%	8.1%	19.0%	8.7%	12.3%	18.2%	5.6%	26.3%	12.4%	14.1%	12.2%	16.9%	12.9%	9.0%	8.9%	14.6%
				BCE		h	H		FH				op				
Fleas	107	24	14	55	14	83	7	9	8	72	28	7	29	31	19	13	15
	17.4%	19.5%	11.3%	20.9%	13.5%	17.6%	21.2%	12.5%	21.1%	16.2%	21.9%	17.1%	21.3%	19.0%	15.6%	14.4%	14.6%
		c		C													
Flies	118	24	23	47	24	87	8	18	5	75	30	13	30	33	23	10	22
	19.2%	19.5%	18.5%	17.9%	23.1%	18.5%	24.2%	25.0%	13.2%	16.9%	23.4%	31.7%	22.1%	20.2%	18.9%	11.1%	21.4%
											j	J	P	p			p
Mosquitoes	116	26	23	48	19	93	5	9	9	79	30	7	28	33	20	13	22
	18.9%	21.1%	18.5%	18.3%	18.3%	19.7%	15.2%	12.5%	23.7%	17.8%	23.4%	17.1%	20.6%	20.2%	16.4%	14.4%	21.4%
Roaches	165	17	18	105	25	120	9	24	12	123	30	12	47	52	29	19	18
	26.9%	13.8%	14.5%	39.9%	24.0%	25.5%	27.3%	33.3%	31.6%	27.6%	23.4%	29.3%	34.6%	31.9%	23.8%	21.1%	17.5%
				BCE	Bc								oPQ	pQ			
Silverfish	77	10	14	39	14	60	5	10	2	53	16	8	21	25	13	3	15
	12.5%	8.1%	11.3%	14.8%	13.5%	12.7%	15.2%	13.9%	5.3%	11.9%	12.5%	19.5%	15.4%	15.3%	10.7%	3.3%	14.6%
				b									P	P	P		P
Spiders	203	26	49	88	40	156	7	22	18	138	53	12	54	57	39	28	25
	33.1%	21.1%	39.5%	33.5%	38.5%	33.1%	21.2%	30.6%	47.4%	31.0%	41.4%	29.3%	39.7%	35.0%	32.0%	31.1%	24.3%
			B	B	B				fGh		J		Q	q			
Water bugs	58	8	9	36	5	42	4	6	6	41	14	3	15	20	11	6	6
	9.4%	6.5%	7.3%	13.7%	4.8%	8.9%	12.1%	8.3%	15.8%	9.2%	10.9%	7.3%	11.0%	12.3%	9.0%	6.7%	5.8%
				BcE										q			
Wasps/hornets	111	16	29	57	9	92	3	8	8	64	31	16	24	35	26	11	15
	18.1%	13.0%	23.4%	21.7%	8.7%	19.5%	9.1%	11.1%	21.1%	14.4%	24.2%	39.0%	17.6%	21.5%	21.3%	12.2%	14.6%
			BE	BE		h					J	Jk		p	p		
Other	44	6	7	19	12	32	3	7	2	36	7	1	14	8	9	5	8
	7.2%	4.9%	5.6%	7.2%	11.5%	6.8%	9.1%	9.7%	5.3%	8.1%	5.5%	2.4%	10.3%	4.9%	7.4%	5.6%	7.8%
					b								n				
Sigma	1481	250	286	712	233	1143	75	154	109	1024	345	112	378	424	280	173	226
	241.2%	203.3%	230.6%	270.7%	224.0%	242.7%	227.3%	213.9%	286.8%	230.1%	269.5%	273.2%	277.9%	260.1%	229.5%	192.2%	219.4%

5E. PET INSECTICIDES

OVERVIEW

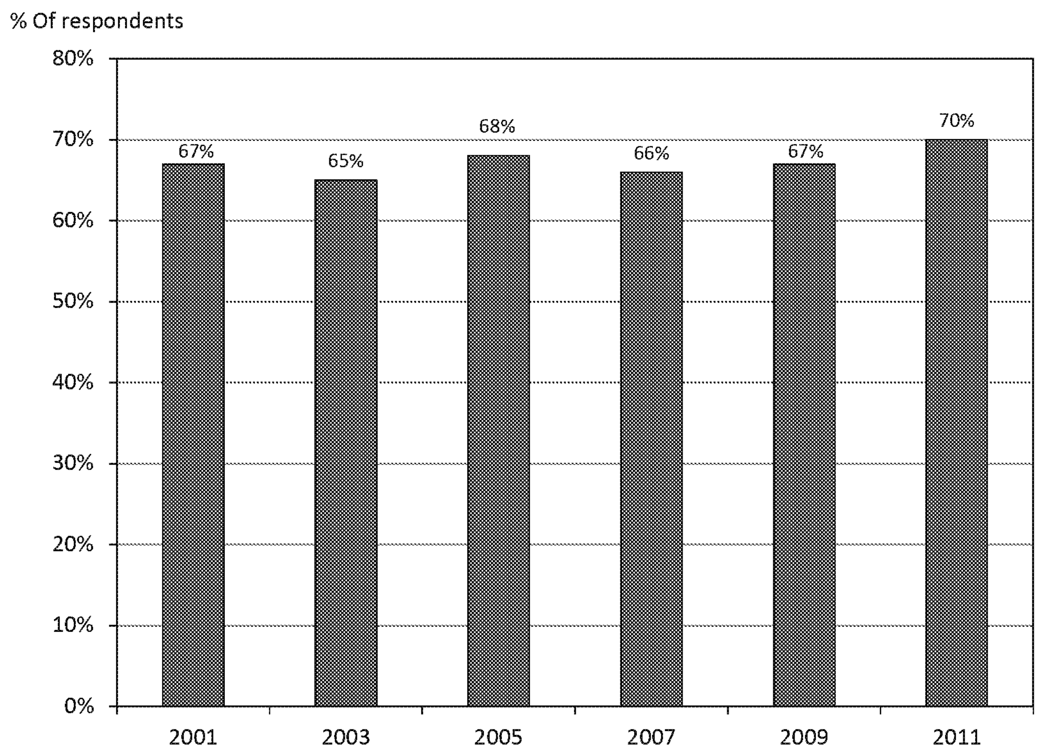
Overall, 70% of the respondents that own a dog and/or cat report purchasing pet insecticide products within the past 12 months, slightly more than the 67% reported in 2009. Eighteen percent of the answering respondents report that they do not use pet insecticides. Owners of dogs were significantly more likely to purchase pet insecticides than cat owners with 77% of dog owners and 54% of cat owners reporting purchasing pet insecticides in 2011.

Table 5E-1: Flea or Tick Products - When Last Purchased a Flea or Tick Product for Dog or Cat Base: Own a Dog/Cat

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	934	173	215	338	208	743	44*	89*	58*	659	203	72*	223	261	167	136	147
Total answering	934	173	215	338	208	743	44*	89*	58*	659	203	72*	223	261	167	136	147
Ever used (grand net)	762	145	166	298	153	615	35	65	47	534	166	62	183	217	137	111	114
	81.6%	83.8%	77.2%	88.2%	73.6%	82.8%	79.5%	73.0%	81.0%	81.0%	81.8%	86.1%	82.1%	83.1%	82.0%	81.6%	77.6%
		E		CE		H											
Used 1 year ago or less (net)	654	131	138	259	126	524	29	58	43	455	145	54	160	183	117	95	99
	70.0%	75.7%	64.2%	76.6%	60.6%	70.5%	65.9%	65.2%	74.1%	69.0%	71.4%	75.0%	71.7%	70.1%	70.1%	69.9%	67.3%
		CE		CE													
Less than 6 months ago	438	90	87	179	82	354	21	32	31	297	106	35	100	138	81	58	61
	46.9%	52.0%	40.5%	53.0%	39.4%	47.6%	47.7%	36.0%	53.4%	45.1%	52.2%	48.6%	44.8%	52.9%	48.5%	42.6%	41.5%
		CE		CE		H			H		j			mpQ			
6 months to 1 year ago	216	41	51	80	44	170	8	26	12	158	39	19	60	45	36	37	38
	23.1%	23.7%	23.7%	23.7%	21.2%	22.9%	18.2%	29.2%	20.7%	24.0%	19.2%	26.4%	26.9%	17.2%	21.6%	27.2%	25.9%
													N			N	N
More than 1 year ago	108	14	28	39	27	91	6	7	4	79	21	8	23	34	20	16	15
	11.6%	8.1%	13.0%	11.5%	13.0%	12.2%	13.6%	7.9%	6.9%	12.0%	10.3%	11.1%	10.3%	13.0%	12.0%	11.8%	10.2%
Never use flea/tick products	172	28	49	40	55	128	9	24	11	125	37	10	40	44	30	25	33
	18.4%	16.2%	22.8%	11.8%	26.4%	17.2%	20.5%	27.0%	19.0%	19.0%	18.2%	13.9%	17.9%	16.9%	18.0%	18.4%	22.4%
			D		BD			F									
Sigma	934	173	215	338	208	743	44	89	58	659	203	72	223	261	167	136	147
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Kline

Figure 5E-1: Percentage of Respondents who Purchased Pet Insecticides During the Last 12 Months, 2001 to 2011



GEOGRAPHIC REGION

Respondents living in the South report the highest purchase incidence for pet insecticides, with 77% of the respondents in that region buying these products in 2011. The lowest reported incidence of purchase is in the West with 61% of the respondents reporting the purchase of pet insecticides.

POPULATION DENSITY

Rural respondents are slightly more likely to purchase pet insecticides than those in urban and suburban areas.

FAMILY INCOME

The family income does not play a significant role in purchasing of pet insecticides. Around 70% of respondents for each income category reported purchasing pet insecticides in 2011.

BRAND RECOLLECTION

Frontline, Advantage, and K9 Advantix are the three most frequently mentioned pet insecticide brands, accounting for 43%, 24%, and 18% of the responses, respectively. Frontline has increased from 42% to 43%, and Advantage has stayed the same, while K9 Advantix replaced Hartz in the third place. In 2011, Hartz was listed by 16%. Frontline is most frequently cited by respondents in the Northeast and Midwest, and Advantage has a higher percentage in the West.

PRODUCT FORM

Liquid drops/rub-in form is reported to be used by 50% of respondents in 2011, an increase from 46% in 2009. Veterinary medicines are reported to be used by 27% of respondents in 2011, a drop from 31% in 2009. Flea and/or tick collars ranked third with 26%, followed by shampoo with 25% of respondents reporting that they use them. Liquid drops/rub-in form was used uniformly across all regions with around 50% of respondents from each region reporting that form.

Table 5E-2: Flea or Tick Products - Brands of Flea Or Tick Product Purchased Past 12 Months for Dog or Cat Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	654	131	138	259	126	524	29**	58*	43*	455	145	54*	160	183	117	95*	99*
Don't know	65	13	16	20	16	58	0	5	2	41	18	6	23	17	9	4	12
	9.9%	9.9%	11.6%	7.7%	12.7%	11.1%	-	8.6%	4.7%	9.0%	12.4%	11.1%	14.4%	9.3%	7.7%	4.2%	12.1%
													oP				P
Total answering	589	118	122	239	110	466	29**	53*	41*	414	127	48*	137	166	108	91*	87*
Adams	37	6	4	24	3	26	4	4	3	28	6	3	14	9	6	1	7
	6.3%	5.1%	3.3%	10.0%	2.7%	5.6%	13.8%	7.5%	7.3%	6.8%	4.7%	6.3%	10.2%	5.4%	5.6%	1.1%	8.0%
				CE									P	p	p		P
K9 Advantix	106	24	15	47	20	85	6	10	5	75	23	8	21	31	21	12	21
	18.0%	20.3%	12.3%	19.7%	18.2%	18.2%	20.7%	18.9%	12.2%	18.1%	18.1%	16.7%	15.3%	18.7%	19.4%	13.2%	24.1%
		c		c													p
Advantage (Net)	141	27	18	56	40	108	9	15	9	104	28	9	35	47	24	17	18
	23.9%	22.9%	14.8%	23.4%	36.4%	23.2%	31.0%	28.3%	22.0%	25.1%	22.0%	18.8%	25.5%	28.3%	22.2%	18.7%	20.7%
				c	BCD									p			
Advantage	120	23	13	46	38	91	7	15	7	89	23	8	32	40	20	14	14
	20.4%	19.5%	10.7%	19.2%	34.5%	19.5%	24.1%	28.3%	17.1%	21.5%	18.1%	16.7%	23.4%	24.1%	18.5%	15.4%	16.1%
		c		C	BCD												
Advantage Multi	31	7	5	13	6	24	4	0	3	23	7	1	4	10	5	4	8
	5.3%	5.9%	4.1%	5.4%	5.5%	5.2%	13.8%	-	7.3%	5.6%	5.5%	2.1%	2.9%	6.0%	4.6%	4.4%	9.2%
						h			H								M
Bansect	12	3	1	6	2	7	4	0	1	8	3	1	2	2	0	1	7
	2.0%	2.5%	0.8%	2.5%	1.8%	1.5%	13.8%	-	2.4%	1.9%	2.4%	2.1%	1.5%	1.2%	-	1.1%	8.0%
																	MNOP
Bio-Spot	35	11	7	13	4	23	5	5	2	27	7	1	6	13	6	2	8
	5.9%	9.3%	5.7%	5.4%	3.6%	4.9%	17.2%	9.4%	4.9%	6.5%	5.5%	2.1%	4.4%	7.8%	5.6%	2.2%	9.2%
		e												p			P
Capstar	20	5	4	8	3	14	2	2	2	15	4	1	1	5	7	1	6
	3.4%	4.2%	3.3%	3.3%	2.7%	3.0%	6.9%	3.8%	4.9%	3.6%	3.1%	2.1%	0.7%	3.0%	6.5%	1.1%	6.9%
															Mp		MP
Defy	8	2	1	3	2	6	2	0	0	8	0	0	0	1	1	1	5
	1.4%	1.7%	0.8%	1.3%	1.8%	1.3%	6.9%	-	-	1.9%	-	-	-	0.6%	0.9%	1.1%	5.7%
																	MNop

(Continued)

Kline

Table 5E-2: Flea or Tick Products - Brands of Flea Or Tick Product Purchased Past 12 Months for Dog or Cat Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Fly Free	11	4	1	5	1	7	2	2	0	11	0	0	1	2	0	1	7
	1.9%	3.4%	0.8%	2.1%	0.9%	1.5%	6.9%	3.8%	-	2.7%	-	-	0.7%	1.2%	-	1.1%	8.0%
										k							MNOP
Frontline (Net)	251	54	67	94	36	208	14	16	13	171	56	24	49	64	48	47	43
	42.6%	45.8%	54.9%	39.3%	32.7%	44.6%	48.3%	30.2%	31.7%	41.3%	44.1%	50.0%	35.8%	38.6%	44.4%	51.6%	49.4%
		E	DE			H										MN	Mn
Frontline Spray	25	9	5	9	2	18	2	3	2	17	7	1	3	6	5	4	7
	4.2%	7.6%	4.1%	3.8%	1.8%	3.9%	6.9%	5.7%	4.9%	4.1%	5.5%	2.1%	2.2%	3.6%	4.6%	4.4%	8.0%
		E															M
Frontline Plus	206	47	54	76	29	169	13	13	11	140	46	20	42	56	40	32	36
	35.0%	39.8%	44.3%	31.8%	26.4%	36.3%	44.8%	24.5%	26.8%	33.8%	36.2%	41.7%	30.7%	33.7%	37.0%	35.2%	41.4%
		E	DE			h											
Frontline top Spot	47	7	12	21	7	40	2	3	2	31	11	5	7	9	11	12	8
	8.0%	5.9%	9.8%	8.8%	6.4%	8.6%	6.9%	5.7%	4.9%	7.5%	8.7%	10.4%	5.1%	5.4%	10.2%	13.2%	9.2%
																MN	
Hartz (Net)	93	17	18	47	11	71	6	6	10	62	23	8	30	30	11	12	10
	15.8%	14.4%	14.8%	19.7%	10.0%	15.2%	20.7%	11.3%	24.4%	15.0%	18.1%	16.7%	21.9%	18.1%	10.2%	13.2%	11.5%
				E					h				OpQ	o			
Hartz InControl	22	2	0	16	4	16	1	1	4	16	3	3	7	7	2	2	4
	3.7%	1.7%	-	6.7%	3.6%	3.4%	3.4%	1.9%	9.8%	3.9%	2.4%	6.3%	5.1%	4.2%	1.9%	2.2%	4.6%
				BC	C				Fh								
Hartz Advanced	45	9	9	22	5	31	5	4	5	29	13	3	15	13	6	7	4
	7.6%	7.6%	7.4%	9.2%	4.5%	6.7%	17.2%	7.5%	12.2%	7.0%	10.2%	6.3%	10.9%	7.8%	5.6%	7.7%	4.6%
													q				
Hartz UltraGuard	42	10	10	18	4	35	2	2	3	27	10	5	13	15	6	3	5
	7.1%	8.5%	8.2%	7.5%	3.6%	7.5%	6.9%	3.8%	7.3%	6.5%	7.9%	10.4%	9.5%	9.0%	5.6%	3.3%	5.7%
													p	p			
IGR-No-Bite	3	2	1	0	0	1	2	0	0	3	0	0	1	1	0	0	1
	0.5%	1.7%	0.8%	-	-	0.2%	6.9%	-	-	0.7%	-	-	0.7%	0.6%	-	-	1.1%
		D															
Mycodex	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	1
	0.2%	-	-	-	0.9%	0.2%	-	-	-	0.2%	-	-	-	-	-	-	1.1%

(Continued)

Table 5E-2: Flea or Tick Products - Brands of Flea Or Tick Product Purchased Past 12 Months for Dog or Cat Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Novation	5	2	0	3	0	3	2	0	0	4	1	0	0	0	0	0	5
	0.8%	1.7%	-	1.3%	-	0.6%	6.9%	-	-	1.0%	0.8%	-	-	-	-	-	5.7%
																	MNOP
Pet-Guard	18	5	0	10	3	12	2	1	3	8	8	2	3	6	3	1	5
	3.1%	4.2%	-	4.2%	2.7%	2.6%	6.9%	1.9%	7.3%	1.9%	6.3%	4.2%	2.2%	3.6%	2.8%	1.1%	5.7%
		C		C	c				f		J						p
ProMeris	2	1	0	1	0	1	1	0	0	2	0	0	0	0	0	0	2
	0.3%	0.8%	-	0.4%	-	0.2%	3.4%	-	-	0.5%	-	-	-	-	-	-	2.3%
																	mn
Preventic Collar	7	2	0	5	0	5	1	0	1	5	2	0	2	1	2	0	2
	1.2%	1.7%	-	2.1%	-	1.1%	3.4%	-	2.4%	1.2%	1.6%	-	1.5%	0.6%	1.9%	-	2.3%
Program (Net)	13	3	0	9	1	6	2	1	4	8	4	1	2	4	2	0	5
	2.2%	2.5%	-	3.8%	0.9%	1.3%	6.9%	1.9%	9.8%	1.9%	3.1%	2.1%	1.5%	2.4%	1.9%	-	5.7%
		c		C					Fh								mP
Program Liquid	8	2	0	6	0	4	1	1	2	6	2	0	0	3	1	0	4
	1.4%	1.7%	-	2.5%	-	0.9%	3.4%	1.9%	4.9%	1.4%	1.6%	-	-	1.8%	0.9%	-	4.6%
				ce					F								MP
Program Tabs	9	3	0	5	1	4	2	1	2	6	2	1	2	2	1	0	4
	1.5%	2.5%	-	2.1%	0.9%	0.9%	6.9%	1.9%	4.9%	1.4%	1.6%	2.1%	1.5%	1.2%	0.9%	-	4.6%
		c							F								nP
Proticall	4	2	0	2	0	3	1	0	0	4	0	0	0	0	0	0	4
	0.7%	1.7%	-	0.8%	-	0.6%	3.4%	-	-	1.0%	-	-	-	-	-	-	4.6%
																	MNOP
Revolution	25	2	3	18	2	18	1	3	3	17	6	2	6	6	4	2	7
	4.2%	1.7%	2.5%	7.5%	1.8%	3.9%	3.4%	5.7%	7.3%	4.1%	4.7%	4.2%	4.4%	3.6%	3.7%	2.2%	8.0%
				BcE													p
Scratchex	8	2	1	5	0	6	1	1	0	6	1	1	1	2	1	1	3
	1.4%	1.7%	0.8%	2.1%	-	1.3%	3.4%	1.9%	-	1.4%	0.8%	2.1%	0.7%	1.2%	0.9%	1.1%	3.4%
Sentry (Net)	16	3	4	7	2	13	1	1	1	12	4	0	4	3	4	2	3
	2.7%	2.5%	3.3%	2.9%	1.8%	2.8%	3.4%	1.9%	2.4%	2.9%	3.1%	-	2.9%	1.8%	3.7%	2.2%	3.4%

(Continued)

Kline

Table 5E-2: Flea or Tick Products - Brands of Flea Or Tick Product Purchased Past 12 Months for Dog or Cat Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Sentry	12	2	4	5	1	9	1	1	1	9	3	0	3	2	4	1	2
	2.0%	1.7%	3.3%	2.1%	0.9%	1.9%	3.4%	1.9%	2.4%	2.2%	2.4%	-	2.2%	1.2%	3.7%	1.1%	2.3%
Sentry Pro	6	2	0	3	1	5	1	0	0	4	2	0	1	1	1	1	2
	1.0%	1.7%	-	1.3%	0.9%	1.1%	3.4%	-	-	1.0%	1.6%	-	0.7%	0.6%	0.9%	1.1%	2.3%
Sentinel	11	4	1	5	1	9	1	1	0	9	0	2	0	4	1	1	5
	1.9%	3.4%	0.8%	2.1%	0.9%	1.9%	3.4%	1.9%	-	2.2%	-	4.2%	-	2.4%	0.9%	1.1%	5.7%
										k		K		m			Mop
Sergeant's	53	8	15	24	6	40	2	4	7	32	14	7	14	18	11	6	4
	9.0%	6.8%	12.3%	10.0%	5.5%	8.6%	6.9%	7.5%	17.1%	7.7%	11.0%	14.6%	10.2%	10.8%	10.2%	6.6%	4.6%
			e						f					q			
Vet-Kem	6	4	0	2	0	4	2	0	0	4	2	0	1	0	0	0	5
	1.0%	3.4%	-	0.8%	-	0.9%	6.9%	-	-	1.0%	1.6%	-	0.7%	-	-	-	5.7%
		Cde															MNOP
Zema	3	0	0	2	1	3	0	0	0	3	0	0	0	1	0	0	2
	0.5%	-	-	0.8%	0.9%	0.6%	-	-	-	0.7%	-	-	-	0.6%	-	-	2.3%
																	m
Zodiac	9	2	3	2	2	7	1	0	1	7	2	0	2	4	2	0	1
	1.5%	1.7%	2.5%	0.8%	1.8%	1.5%	3.4%	-	2.4%	1.7%	1.6%	-	1.5%	2.4%	1.9%	-	1.1%
Other	23	4	4	11	4	20	0	2	1	16	6	1	6	9	2	3	3
	3.9%	3.4%	3.3%	4.6%	3.6%	4.3%	-	3.8%	2.4%	3.9%	4.7%	2.1%	4.4%	5.4%	1.9%	3.3%	3.4%
Sigma	980	218	173	436	153	747	83	79	71	690	214	76	210	279	169	113	209
	166.4%	184.7%	141.8%	182.4%	139.1%	160.3%	286.2%	149.1%	173.2%	166.7%	168.5%	158.3%	153.3%	168.1%	156.5%	124.2%	240.2%

Figure 5E-2: Percentage of Purchasers Who Recall the Last Brand of Pet Insecticide they Purchased, 2001 to 2011

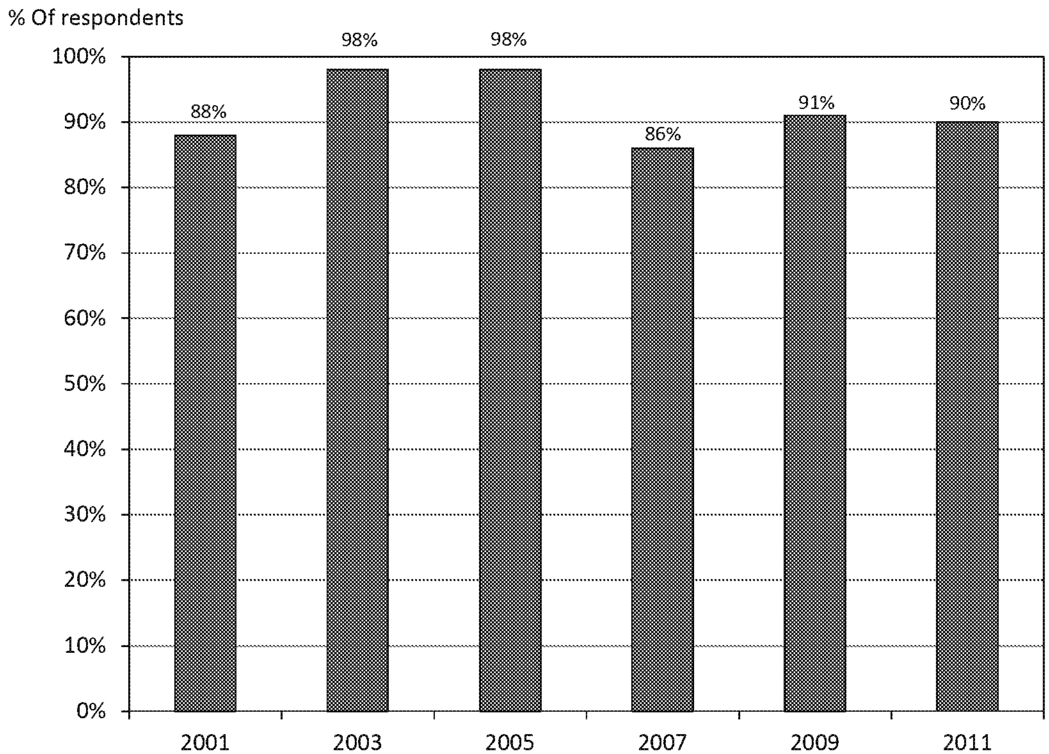


Table 5E-3: Flea or Tick Products - Types of Flea and/or Tick Products Currently Using on Dog or Cat Base: Treated Dog or Cat For Fleas or Ticks

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	762	145	166	298	153	615	35*	65*	47*	534	166	62*	183	217	137	111	114
Total answering	762	145	166	298	153	615	35*	65*	47*	534	166	62*	183	217	137	111	114
Collar	197	38	43	82	34	154	12	15	16	137	43	17	54	52	33	27	31
	25.9%	26.2%	25.9%	27.5%	22.2%	25.0%	34.3%	23.1%	34.0%	25.7%	25.9%	27.4%	29.5%	24.0%	24.1%	24.3%	27.2%
Dip	46	9	4	27	6	30	8	4	4	35	7	4	11	12	9	4	10
	6.0%	6.2%	2.4%	9.1%	3.9%	4.9%	22.9%	6.2%	8.5%	6.6%	4.2%	6.5%	6.0%	5.5%	6.6%	3.6%	8.8%
		c		CE			FHi										
On animal spray	56	16	11	24	5	46	6	0	4	36	14	6	12	20	6	8	10
	7.3%	11.0%	6.6%	8.1%	3.3%	7.5%	17.1%	-	8.5%	6.7%	8.4%	9.7%	6.6%	9.2%	4.4%	7.2%	8.8%
		E		e		H	FH		H					o			
Shampoo	192	32	41	83	36	150	12	13	17	133	42	17	62	61	30	18	21
	25.2%	22.1%	24.7%	27.9%	23.5%	24.4%	34.3%	20.0%	36.2%	24.9%	25.3%	27.4%	33.9%	28.1%	21.9%	16.2%	18.4%
									fh				OPQ	Pq			
Vet medicine (drops or pills)	203	43	33	95	32	158	10	17	18	137	52	14	38	65	45	23	32
	26.6%	29.7%	19.9%	31.9%	20.9%	25.7%	28.6%	26.2%	38.3%	25.7%	31.3%	22.6%	20.8%	30.0%	32.8%	20.7%	28.1%
		Ce		CE					f					Mp	MP		
Powder	44	8	9	18	9	34	3	3	4	30	12	2	7	14	12	4	7
	5.8%	5.5%	5.4%	6.0%	5.9%	5.5%	8.6%	4.6%	8.5%	5.6%	7.2%	3.2%	3.8%	6.5%	8.8%	3.6%	6.1%
															m		
Comb	50	14	7	21	8	35	6	6	3	33	11	6	18	14	7	2	9
	6.6%	9.7%	4.2%	7.0%	5.2%	5.7%	17.1%	9.2%	6.4%	6.2%	6.6%	9.7%	9.8%	6.5%	5.1%	1.8%	7.9%
		c					F						P	p			P
Trap	13	6	0	5	2	8	3	1	1	11	2	0	0	6	0	1	6
	1.7%	4.1%	-	1.7%	1.3%	1.3%	8.6%	1.5%	2.1%	2.1%	1.2%	-	-	2.8%	-	0.9%	5.3%
		C		c			Fh							Mo			MOp
Liquid drops/rub-in	383	75	85	143	80	314	19	28	22	265	86	32	88	111	64	55	65
	50.3%	51.7%	51.2%	48.0%	52.3%	51.1%	54.3%	43.1%	46.8%	49.6%	51.8%	51.6%	48.1%	51.2%	46.7%	49.5%	57.0%
Other	27	5	6	12	4	21	1	4	1	18	5	4	4	12	6	0	5
	3.5%	3.4%	3.6%	4.0%	2.6%	3.4%	2.9%	6.2%	2.1%	3.4%	3.0%	6.5%	2.2%	5.5%	4.4%	-	4.4%
														mP	P		P
Sigma	1,211	246	239	510	216	950	80	91	90	835	274	102	294	367	212	142	196
	158.9%	169.7%	144.0%	171.1%	141.2%	154.5%	228.6%	140.0%	191.5%	156.4%	165.1%	164.5%	160.7%	169.1%	154.7%	127.9%	171.9%

RETAIL OUTLET

Veterinarians and discount or mass-merchandise stores are listed by respondents as the location where they purchase their flea and tick products, with 35% and 29% reporting purchase at these outlets, respectively. Purchase from a veterinarian is fairly consistent across all regions. With regard to income levels, there is a general trend toward increased veterinary purchases at higher income levels. Purchase from discount or mass-merchandise stores is higher at the lowest income level and decreasing as income level increases. Pet stores and supply stores are frequented overall by 14% of respondents. The highest incidence of purchase in pet stores and supply stores is in the West, where 22% of the respondents indicate them as the location where flea and tick products are purchased. Supermarkets account for only 5% of the flea and tick product purchases in 2011.

Table 5E-4: Flea or Tick Products - Where Purchase Flea Products Most Often for Dog or Cat Base: Ever Used Flea or Tick Product for Dog or Cat

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	762	145	166	298	153	615	35*	65*	47*	534	166	62*	183	217	137	111	114
Not applicable	20	1	5	8	6	19	0	0	1	13	3	4	3	8	4	1	4
	2.6%	0.7%	3.0%	2.7%	3.9%	3.1%	-	-	2.1%	2.4%	1.8%	6.5%	1.6%	3.7%	2.9%	0.9%	3.5%
					b							jk					
Don't know	6	1	2	2	1	6	0	0	0	5	1	0	1	2	0	1	2
	0.8%	0.7%	1.2%	0.7%	0.7%	1.0%	-	-	-	0.9%	0.6%	-	0.5%	0.9%	-	0.9%	1.8%
Total answering	736	143	159	288	146	590	35*	65*	46*	516	162	58*	179	207	133	109	108
Veterinarian	258	48	58	111	41	208	11	25	14	175	67	16	52	73	46	35	52
	35.1%	33.6%	36.5%	38.5%	28.1%	35.3%	31.4%	38.5%	30.4%	33.9%	41.4%	27.6%	29.1%	35.3%	34.6%	32.1%	48.1%
				E							jl						MNOP
Discount/mass merchandise store (e.g. Walmart, K-Mart)	213	31	44	99	39	171	8	14	20	127	58	28	70	66	36	25	16
	28.9%	21.7%	27.7%	34.4%	26.7%	29.0%	22.9%	21.5%	43.5%	24.6%	35.8%	48.3%	39.1%	31.9%	27.1%	22.9%	14.8%
				B					FgH		J	Jk	OPQ	pQ	Q		
Lawn/garden center	10	3	1	4	2	7	3	0	0	8	2	0	1	5	0	1	3
	1.4%	2.1%	0.6%	1.4%	1.4%	1.2%	8.6%	-	-	1.6%	1.2%	-	0.6%	2.4%	-	0.9%	2.8%
							FHI							o			o
Supermarket/grocery store	33	11	8	8	6	23	2	5	3	27	4	2	8	9	6	5	5
	4.5%	7.7%	5.0%	2.8%	4.1%	3.9%	5.7%	7.7%	6.5%	5.2%	2.5%	3.4%	4.5%	4.3%	4.5%	4.6%	4.6%
		D															
Home improvement center (e.g. Home Depot, Lowes)	9	2	2	1	4	5	3	0	1	8	0	1	3	1	0	1	4
	1.2%	1.4%	1.3%	0.3%	2.7%	0.8%	8.6%	-	2.2%	1.6%	-	1.7%	1.7%	0.5%	-	0.9%	3.7%
					D		FH					k					NO
Hardware store (e.g. True Value)	5	1	0	2	2	5	0	0	0	4	1	0	1	2	1	0	1
	0.7%	0.7%	-	0.7%	1.4%	0.8%	-	-	-	0.8%	0.6%	-	0.6%	1.0%	0.8%	-	0.9%
Farm supply store	27	4	15	7	1	26	0	1	0	17	7	3	7	9	3	7	1
	3.7%	2.8%	9.4%	2.4%	0.7%	4.4%	-	1.5%	-	3.3%	4.3%	5.2%	3.9%	4.3%	2.3%	6.4%	0.9%
			BDE													Q	
Mail order/catalog	9	2	3	3	1	9	0	0	0	6	2	1	3	3	1	1	1
	1.2%	1.4%	1.9%	1.0%	0.7%	1.5%	-	-	-	1.2%	1.2%	1.7%	1.7%	1.4%	0.8%	0.9%	0.9%
On-line pet products supplier	69	17	8	31	13	57	1	6	5	52	7	10	10	21	15	12	11
	9.4%	11.9%	5.0%	10.8%	8.9%	9.7%	2.9%	9.2%	10.9%	10.1%	4.3%	17.2%	5.6%	10.1%	11.3%	11.0%	10.2%
		C		C						K		jK			m	m	
Pet store	56	15	8	17	16	41	6	5	4	45	11	0	10	14	14	14	4
	7.6%	10.5%	5.0%	5.9%	11.0%	6.9%	17.1%	7.7%	8.7%	8.7%	6.8%	-	5.6%	6.8%	10.5%	12.8%	3.7%
		cd			cd		F			L	L				Q	MnQ	
Pet supply store	44	9	9	11	15	36	1	5	2	39	5	0	14	8	10	4	8
	6.0%	6.3%	5.7%	3.8%	10.3%	6.1%	2.9%	7.7%	4.3%	7.6%	3.1%	-	7.8%	3.9%	7.5%	3.7%	7.4%
					D					KL			n				
Internet/World Wide Web	26	7	6	8	5	22	0	2	2	19	4	3	5	6	6	5	4
	3.5%	4.9%	3.8%	2.8%	3.4%	3.7%	-	3.1%	4.3%	3.7%	2.5%	5.2%	2.8%	2.9%	4.5%	4.6%	3.7%
Warehouse/wholesale club	7	1	0	3	3	6	1	0	0	6	1	0	1	3	0	1	2
	1.0%	0.7%	-	1.0%	2.1%	1.0%	2.9%	-	-	1.2%	0.6%	-	0.6%	1.4%	-	0.9%	1.9%
					c												
Other	9	2	2	1	4	6	0	3	0	8	1	0	3	2	1	2	1
	1.2%	1.4%	1.3%	0.3%	2.7%	1.0%	-	4.6%	-	1.6%	0.6%	-	1.7%	1.0%	0.8%	1.8%	0.9%
					D			F									
Sigma	775	153	164	306	152	622	36	66	51	541	170	64	188	222	139	113	113
	105.3%	107.0%	103.1%	106.3%	104.1%	105.4%	102.9%	101.5%	110.9%	104.8%	104.9%	110.3%	105.0%	107.2%	104.5%	103.7%	104.6%

Kline

6A. RODENTICIDES

OVERVIEW

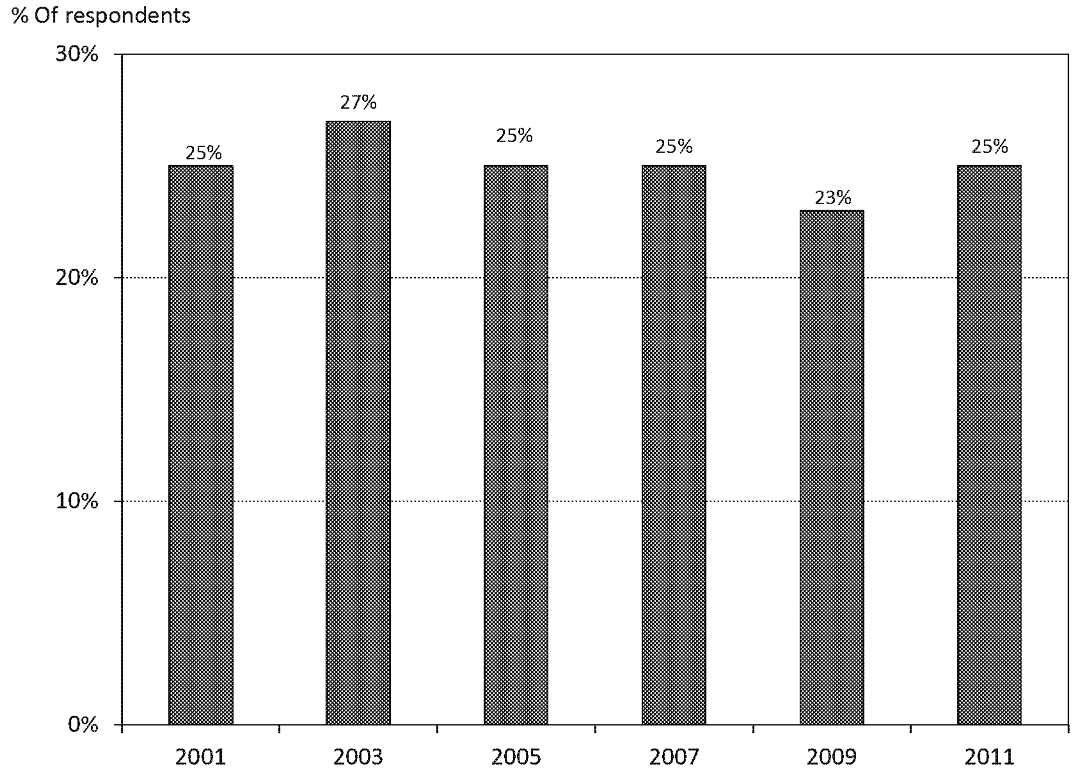
Among answering respondents, 25% report purchasing rodenticide products in 2011, slightly higher than the 23% reported in 2009. Fifty-nine percent of analyzed respondents indicate that they do not use rodenticides.

Table 6A-1: Rodenticides - When Last Bought?

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Base: Total Respondents	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
Total answering	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
One year ago or less (net)	382	78	94	144	66	302	26	34	20	253	103	26	95	106	66	52	63
	24.6%	25.7%	25.6%	26.2%	19.9%	25.7%	32.5%	15.8%	23.8%	22.3%	33.6%	23.9%	25.1%	25.7%	24.3%	21.1%	25.9%
		e	e	E		H	H				JI						
Less than 6 months ago	200	42	53	72	33	156	11	22	11	129	56	15	54	54	32	24	36
	12.9%	13.8%	14.4%	13.1%	9.9%	13.3%	13.8%	10.2%	13.1%	11.4%	18.2%	13.8%	14.3%	13.1%	11.8%	9.7%	14.8%
			e								J		p				p
6 months to 1 year ago	182	36	41	72	33	146	15	12	9	124	47	11	41	52	34	28	27
	11.7%	11.8%	11.2%	13.1%	9.9%	12.4%	18.8%	5.6%	10.7%	10.9%	15.3%	10.1%	10.8%	12.6%	12.5%	11.3%	11.1%
						H	H				J						
More than 1 year ago	256	43	57	103	53	206	9	26	15	186	43	27	58	62	46	39	51
	16.5%	14.1%	15.5%	18.8%	16.0%	17.6%	11.3%	12.1%	17.9%	16.4%	14.0%	24.8%	15.3%	15.0%	16.9%	15.8%	21.0%
				b		H						JK					mn
Do not use product	914	183	216	302	213	665	45	155	49	697	161	56	225	244	160	156	129
	58.9%	60.2%	58.9%	55.0%	64.2%	56.7%	56.3%	72.1%	58.3%	61.4%	52.4%	51.4%	59.5%	59.2%	58.8%	63.2%	53.1%
					D			FGI		KL						Q	
Sigma	1,552	304	367	549	332	1,173	80	215	84	1,136	307	109	378	412	272	247	243
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Kline

Figure 6A-1: Percentage of Respondents who Purchased Rodenticides During the Last 12 Months, 2001 to 2011



GEOGRAPHIC REGION

Rodenticide use is fairly consistent across all regions with the highest use in the South with 26% and the lowest use in the West with 20%.

POPULATION DENSITY

Suburban respondents are more likely to purchase rodenticides, with 34% of the respondents reporting a purchase in 2011, up from 30% in 2009. Twenty-four percent of rural respondents report purchasing rodenticides in 2011, down from 33% in 2009.

FAMILY INCOME

The purchase of rodenticides does not depend on the family income level with percentages reported in 2011 being around 25% for each income category.

BRAND RECOLLECTION

The most frequently mentioned brand in 2011 is D-CON, accounting for 73% of the responses, down from 79% in 2009. Brand recognition for other products is limited, with Tomcat and Victor mentioned by 11% of respondents each.

Table 6A-2: Rodenticides - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	382	78*	94*	144	66*	302	26**	34*	20**	253	103	26**	95*	106	66*	52*	63*
Don't know	49	14	10	19	6	37	4	6	2	36	10	3	12	10	12	10	5
	12.8%	17.9%	10.6%	13.2%	9.1%	12.3%	15.4%	17.6%	10.0%	14.2%	9.7%	11.5%	12.6%	9.4%	18.2%	19.2%	7.9%
															nq	nq	
Total answering	333	64*	84*	125	60*	265	22**	28**	18**	217	93*	23**	83*	96*	54*	42*	58*
Cook Quick Kill Gopher Mix	14	6	2	4	2	10	4	0	0	11	3	0	2	2	3	1	6
	4.2%	9.4%	2.4%	3.2%	3.3%	3.8%	18.2%	-	-	5.1%	3.2%	-	2.4%	2.1%	5.6%	2.4%	10.3%
		cd															MN
CyKill	11	6	0	3	2	7	4	0	0	9	2	0	1	2	1	1	6
	3.3%	9.4%	-	2.4%	3.3%	2.6%	18.2%	-	-	4.1%	2.2%	-	1.2%	2.1%	1.9%	2.4%	10.3%
		CD			c												MNo
D-Con (Net)	243	50	61	85	47	193	18	21	11	158	67	18	61	71	41	31	39
	73.0%	78.1%	72.6%	68.0%	78.3%	72.8%	81.8%	75.0%	61.1%	72.8%	72.0%	78.3%	73.5%	74.0%	75.9%	73.8%	67.2%
D-Con Mice & Rats	128	20	30	49	29	106	6	9	7	71	44	13	37	34	22	20	15
	38.4%	31.3%	35.7%	39.2%	48.3%	40.0%	27.3%	32.1%	38.9%	32.7%	47.3%	56.5%	44.6%	35.4%	40.7%	47.6%	25.9%
					b						J		Q		q	Q	
D-Con Rat Bait Pellets	71	15	14	26	16	54	9	6	2	49	18	4	13	28	11	6	13
	21.3%	23.4%	16.7%	20.8%	26.7%	20.4%	40.9%	21.4%	11.1%	22.6%	19.4%	17.4%	15.7%	29.2%	20.4%	14.3%	22.4%
														Mp			
D-Con Place Pads	23	5	7	7	4	17	4	1	1	18	4	1	2	10	4	0	7
	6.9%	7.8%	8.3%	5.6%	6.7%	6.4%	18.2%	3.6%	5.6%	8.3%	4.3%	4.3%	2.4%	10.4%	7.4%	-	12.1%
														MP	p		MP
D-Con Bait Paste	16	6	2	5	3	8	2	5	1	11	5	0	2	5	5	0	4
	4.8%	9.4%	2.4%	4.0%	5.0%	3.0%	9.1%	17.9%	5.6%	5.1%	5.4%	-	2.4%	5.2%	9.3%	-	6.9%
		c													mP		p
D-Con Quick Kill	21	9	3	5	4	14	4	1	2	18	3	0	6	2	3	1	9
	6.3%	14.1%	3.6%	4.0%	6.7%	5.3%	18.2%	3.6%	11.1%	8.3%	3.2%	-	7.2%	2.1%	5.6%	2.4%	15.5%
		CD											n				NoP
D-Con No View, No Touch Traps	22	8	3	5	6	14	4	2	2	15	7	0	6	4	5	4	3
	6.6%	12.5%	3.6%	4.0%	10.0%	5.3%	18.2%	7.1%	11.1%	6.9%	7.5%	-	7.2%	4.2%	9.3%	9.5%	5.2%
		CD															

(Continued)

Table 6A-2: Rodenticides - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
D-Con Quick Kill Glue Traps	41	12	12	13	4	33	3	3	2	30	9	2	10	11	5	7	8
	12.3%	18.8%	14.3%	10.4%	6.7%	12.5%	13.6%	10.7%	11.1%	13.8%	9.7%	8.7%	12.0%	11.5%	9.3%	16.7%	13.8%
		E															
D-Con Ultra Set Covered Mouse Trap	10	3	1	5	1	6	1	2	1	6	4	0	0	2	3	0	5
	3.0%	4.7%	1.2%	4.0%	1.7%	2.3%	4.5%	7.1%	5.6%	2.8%	4.3%	-	-	2.1%	5.6%	-	8.6%
															M		Mnp
D-Con OTHER (Please Specify)	2	0	0	2	0	2	0	0	0	1	1	0	0	2	0	0	0
	0.6%	-	-	1.6%	-	0.8%	-	-	-	0.5%	1.1%	-	-	2.1%	-	-	-
Enforcer (Net)	25	4	5	11	5	21	4	0	0	18	6	1	4	6	4	1	10
	7.5%	6.3%	6.0%	8.8%	8.3%	7.9%	18.2%	-	-	8.3%	6.5%	4.3%	4.8%	6.3%	7.4%	2.4%	17.2%
																	MNP
Enforcer Rat Max	5	1	1	2	1	4	1	0	0	2	2	1	1	1	1	1	1
	1.5%	1.6%	1.2%	1.6%	1.7%	1.5%	4.5%	-	-	0.9%	2.2%	4.3%	1.2%	1.0%	1.9%	2.4%	1.7%
Enforcer Mouse Max	9	1	2	6	0	7	2	0	0	7	2	0	1	2	3	0	3
	2.7%	1.6%	2.4%	4.8%	-	2.6%	9.1%	-	-	3.2%	2.2%	-	1.2%	2.1%	5.6%	-	5.2%
				e													
Enforcer Rat & Mouse	11	2	2	4	3	10	1	0	0	8	3	0	2	2	2	0	5
	3.3%	3.1%	2.4%	3.2%	5.0%	3.8%	4.5%	-	-	3.7%	3.2%	-	2.4%	2.1%	3.7%	-	8.6%
																	mnp
Enforcer Gopher Max	6	2	0	3	1	4	2	0	0	3	3	0	0	1	1	0	4
	1.8%	3.1%	-	2.4%	1.7%	1.5%	9.1%	-	-	1.4%	3.2%	-	-	1.0%	1.9%	-	6.9%
																	MNp
Havoc XT	1	0	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0
	0.3%	-	1.2%	-	-	-	4.5%	-	-	0.5%	-	-	-	-	1.9%	-	-
Hawk All Weather Bait	5	2	0	0	3	3	2	0	0	4	1	0	0	1	0	0	4
	1.5%	3.1%	-	-	5.0%	1.1%	9.1%	-	-	1.8%	1.1%	-	-	1.0%	-	-	6.9%
		D			CD												MNop
JT Eaton StickEm Covered Mouse Trap	3	0	1	1	1	1	0	1	1	3	0	0	2	0	0	0	1
	0.9%	-	1.2%	0.8%	1.7%	0.4%	-	3.6%	5.6%	1.4%	-	-	2.4%	-	-	-	1.7%
JT Eason StickEm Mouse Glue Trap	6	1	1	3	1	3	0	1	2	5	1	0	2	1	0	1	2
	1.8%	1.6%	1.2%	2.4%	1.7%	1.1%	-	3.6%	11.1%	2.3%	1.1%	-	2.4%	1.0%	-	2.4%	3.4%

(Continued)

Table 6A-2: Rodenticides - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Just One Bite Rat & Mouse	6	2	1	3	0	3	2	0	1	2	2	2	2	1	1	0	2
	1.8%	3.1%	1.2%	2.4%	-	1.1%	9.1%	-	5.6%	0.9%	2.2%	8.7%	2.4%	1.0%	1.9%	-	3.4%
Jaguar	3	2	1	0	0	1	2	0	0	1	2	0	1	1	0	0	1
	0.9%	3.1%	1.2%	-	-	0.4%	9.1%	-	-	0.5%	2.2%	-	1.2%	1.0%	-	-	1.7%
		D															
Motomco (Net)	3	1	1	1	0	2	1	0	0	3	0	0	0	2	0	0	1
	0.9%	1.6%	1.2%	0.8%	-	0.8%	4.5%	-	-	1.4%	-	-	-	2.1%	-	-	1.7%
Motomco Mole Killer	2	1	1	0	0	1	1	0	0	2	0	0	0	2	0	0	0
	0.6%	1.6%	1.2%	-	-	0.4%	4.5%	-	-	0.9%	-	-	-	2.1%	-	-	-
Motomco Gohper Killer	1	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	1
	0.3%	-	-	0.8%	-	0.4%	-	-	-	0.5%	-	-	-	-	-	-	1.7%
Ortho Home (Net)	20	5	4	8	3	16	2	1	1	13	5	2	4	3	3	4	6
	6.0%	7.8%	4.8%	6.4%	5.0%	6.0%	9.1%	3.6%	5.6%	6.0%	5.4%	8.7%	4.8%	3.1%	5.6%	9.5%	10.3%
Ortho Home Defense No Touch Bait Station	12	4	2	6	0	9	2	1	0	7	4	1	2	0	2	3	5
	3.6%	6.3%	2.4%	4.8%	-	3.4%	9.1%	3.6%	-	3.2%	4.3%	4.3%	2.4%	-	3.7%	7.1%	8.6%
		e		e											n	N	mN
Ortho Home Defense No Touch Bait Past Packs	3	0	0	3	0	3	0	0	0	1	2	0	1	0	1	0	1
	0.9%	-	-	2.4%	-	1.1%	-	-	-	0.5%	2.2%	-	1.2%	-	1.9%	-	1.7%
Ortho Home Defense Mouse Trap	12	1	3	5	3	11	0	0	1	7	4	1	3	3	2	2	2
	3.6%	1.6%	3.6%	4.0%	5.0%	4.2%	-	-	5.6%	3.2%	4.3%	4.3%	3.6%	3.1%	3.7%	4.8%	3.4%
Prozap	1	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	1
	0.3%	-	-	0.8%	-	0.4%	-	-	-	0.5%	-	-	-	-	-	-	1.7%
Ramik	2	0	1	0	1	2	0	0	0	1	1	0	0	0	1	1	0
	0.6%	-	1.2%	-	1.7%	0.8%	-	-	-	0.5%	1.1%	-	-	-	1.9%	2.4%	-
Tomcat (Net)	38	9	13	11	5	29	6	2	1	22	14	2	7	13	10	3	5
	11.4%	14.1%	15.5%	8.8%	8.3%	10.9%	27.3%	7.1%	5.6%	10.1%	15.1%	8.7%	8.4%	13.5%	18.5%	7.1%	8.6%
															m		
Tomcat Rodent Block	18	6	4	6	2	15	2	0	1	8	9	1	5	3	5	2	3
	5.4%	9.4%	4.8%	4.8%	3.3%	5.7%	9.1%	-	5.6%	3.7%	9.7%	4.3%	6.0%	3.1%	9.3%	4.8%	5.2%
										J							

(Continued)

Table 6A-2: Rodenticides - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Tomcat All Weather Bait Chunx	5	1	3	1	0	4	1	0	0	3	1	1	0	2	2	0	1
	1.5%	1.6%	3.6%	0.8%	-	1.5%	4.5%	-	-	1.4%	1.1%	4.3%	-	2.1%	3.7%	-	1.7%
															m		
Tomcat Rat & Mouse Bait	18	2	6	7	3	13	2	2	1	11	7	0	3	7	5	1	2
	5.4%	3.1%	7.1%	5.6%	5.0%	4.9%	9.1%	7.1%	5.6%	5.1%	7.5%	-	3.6%	7.3%	9.3%	2.4%	3.4%
Tomcat Liquid Concentrate Bait	2	1	1	0	0	0	2	0	0	2	0	0	0	1	1	0	0
	0.6%	1.6%	1.2%	-	-	-	9.1%	-	-	0.9%	-	-	-	1.0%	1.9%	-	-
Spectracide Mole Stop	2	0	0	2	0	2	0	0	0	1	1	0	0	0	1	0	1
	0.6%	-	-	1.6%	-	0.8%	-	-	-	0.5%	1.1%	-	-	-	1.9%	-	1.7%
Sweeney's Mole & Gopher (Net)	3	0	1	2	0	2	0	0	1	1	2	0	1	0	1	1	0
	0.9%	-	1.2%	1.6%	-	0.8%	-	-	5.6%	0.5%	2.2%	-	1.2%	-	1.9%	2.4%	-
Sweeney's Mole & Gopher Poison Peanuts	2	0	1	1	0	2	0	0	0	1	1	0	0	0	1	1	0
	0.6%	-	1.2%	0.8%	-	0.8%	-	-	-	0.5%	1.1%	-	-	-	1.9%	2.4%	-
Sweeney's Mole & Gopher Sonic Spikes	1	0	0	1	0	0	0	0	1	0	1	0	1	0	0	0	0
	0.3%	-	-	0.8%	-	-	-	-	5.6%	-	1.1%	-	1.2%	-	-	-	-
Victor (Net)	38	6	11	14	7	30	3	2	3	28	8	2	8	12	8	3	7
	11.4%	9.4%	13.1%	11.2%	11.7%	11.3%	13.6%	7.1%	16.7%	12.9%	8.6%	8.7%	9.6%	12.5%	14.8%	7.1%	12.1%
Victor Rat & Mouse Pellets	5	1	1	2	1	5	0	0	0	4	1	0	1	1	1	1	1
	1.5%	1.6%	1.2%	1.6%	1.7%	1.9%	-	-	-	1.8%	1.1%	-	1.2%	1.0%	1.9%	2.4%	1.7%
Victor Rat & Mouse Blocks	6	0	2	3	1	5	0	0	1	5	0	1	2	1	1	0	2
	1.8%	-	2.4%	2.4%	1.7%	1.9%	-	-	5.6%	2.3%	-	4.3%	2.4%	1.0%	1.9%	-	3.4%
Victor Multi Kill	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
	0.3%	1.6%	-	-	-	0.4%	-	-	-	0.5%	-	-	-	-	-	-	1.7%
Victor Fast Kill	6	2	0	3	1	4	1	1	0	4	2	0	1	2	2	0	1
	1.8%	3.1%	-	2.4%	1.7%	1.5%	4.5%	3.6%	-	1.8%	2.2%	-	1.2%	2.1%	3.7%	-	1.7%
Victor Kill and Seal Mouse Trap	4	0	1	2	1	4	0	0	0	4	0	0	2	1	0	0	1
	1.2%	-	1.2%	1.6%	1.7%	1.5%	-	-	-	1.8%	-	-	2.4%	1.0%	-	-	1.7%
Victor Live Mouse Trap	17	2	8	5	2	13	1	1	2	12	4	1	4	5	5	1	2
	5.1%	3.1%	9.5%	4.0%	3.3%	4.9%	4.5%	3.6%	11.1%	5.5%	4.3%	4.3%	4.8%	5.2%	9.3%	2.4%	3.4%

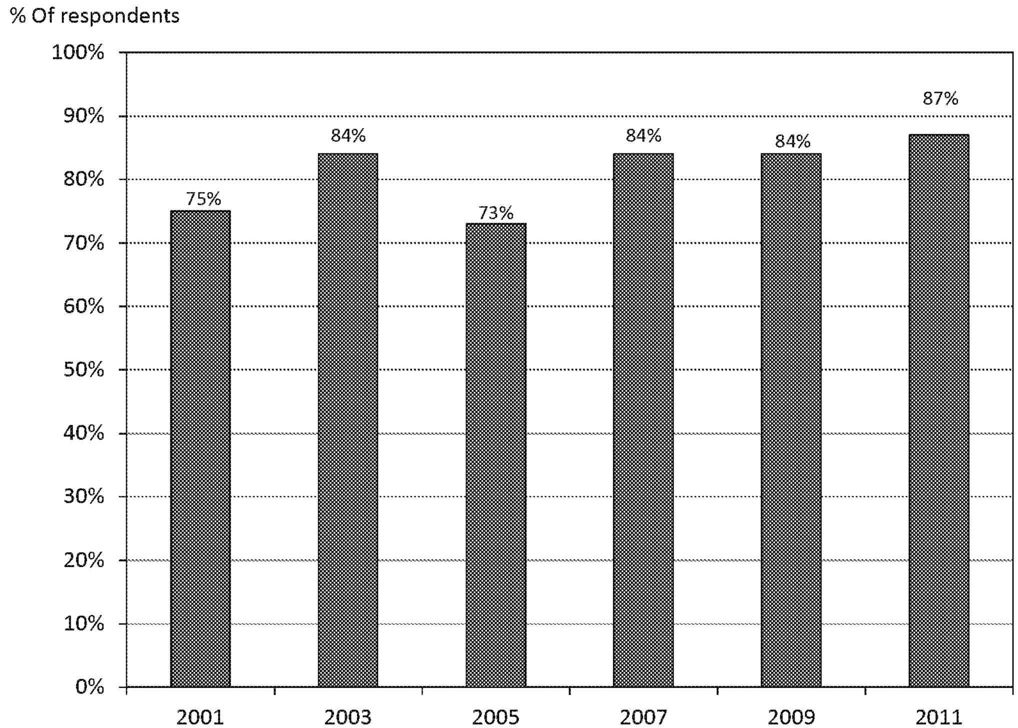
(Continued)

Table 6A-2: Rodenticides - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Victor OTHER (Please Specify)	3	0	0	1	2	2	1	0	0	2	1	0	0	2	0	1	0
	0.9%	-	-	0.8%	3.3%	0.8%	4.5%	-	-	0.9%	1.1%	-	-	2.1%	-	2.4%	-
					c												
Other	18	2	4	8	4	13	0	2	3	12	6	0	6	4	4	2	2
	5.4%	3.1%	4.8%	6.4%	6.7%	4.9%	-	7.1%	16.7%	5.5%	6.5%	-	7.2%	4.2%	7.4%	4.8%	3.4%
Sigma	555	127	122	204	102	418	67	38	32	365	161	29	121	146	105	57	126
	166.7%	198.4%	145.2%	163.2%	170.0%	157.7%	304.5%	135.7%	177.8%	168.2%	173.1%	126.1%	145.8%	152.1%	194.4%	135.7%	217.2%

Kline

Figure 6A-2: Percentage of Purchasers who Recall the Last Brand of Rodenticide they Purchased, 2001 to 2011



PRODUCT FORM

Rodenticide products in bait packets are the primary product form purchased in 2011, accounting for 54% of the responses, down from 65% in 2009. Loose grain bait products follow, accounting for 30% of the responses. The preference for bait packets over loose grain bait is consistent among geographic regions, population densities, and income levels.

Table 6A-3: Rodenticides - What Form was the Product? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	382	78*	94*	144	66*	302	26**	34*	20**	253	103	26**	95*	106	66*	52*	63*
Don't know	24	11	5	7	1	18	1	4	1	18	5	1	9	5	2	6	2
	6.3%	14.1%	5.3%	4.9%	1.5%	6.0%	3.8%	11.8%	5.0%	7.1%	4.9%	3.8%	9.5%	4.7%	3.0%	11.5%	3.2%
		cDE														oq	
Total answering	358	67*	89*	137	65*	284	25**	30*	19**	235	98*	25**	86*	101	64*	46*	61*
Liquid	39	11	5	14	9	24	6	7	2	29	9	1	10	6	7	2	14
	10.9%	16.4%	5.6%	10.2%	13.8%	8.5%	24.0%	23.3%	10.5%	12.3%	9.2%	4.0%	11.6%	5.9%	10.9%	4.3%	23.0%
		C			c			F									mNoP
Gas/smoke bomb	37	12	7	14	4	21	8	7	1	29	8	0	6	4	7	5	15
	10.3%	17.9%	7.9%	10.2%	6.2%	7.4%	32.0%	23.3%	5.3%	12.3%	8.2%	-	7.0%	4.0%	10.9%	10.9%	24.6%
		cE						F							n		MNOp
Loose grain bait	106	16	24	38	28	93	4	4	5	72	30	4	23	29	19	14	21
	29.6%	23.9%	27.0%	27.7%	43.1%	32.7%	16.0%	13.3%	26.3%	30.6%	30.6%	16.0%	26.7%	28.7%	29.7%	30.4%	34.4%
					BCD	H											
Bait packet	193	42	51	76	24	160	15	10	8	120	56	17	46	59	37	24	27
	53.9%	62.7%	57.3%	55.5%	36.9%	56.3%	60.0%	33.3%	42.1%	51.1%	57.1%	68.0%	53.5%	58.4%	57.8%	52.2%	44.3%
		E	E	E		H								q			
Other	56	7	17	25	7	44	2	4	6	37	14	5	17	17	10	7	5
	15.6%	10.4%	19.1%	18.2%	10.8%	15.5%	8.0%	13.3%	31.6%	15.7%	14.3%	20.0%	19.8%	16.8%	15.6%	15.2%	8.2%
													q				
Sigma	431	88	104	167	72	342	35	32	22	287	117	27	102	115	80	52	82
	120.4%	131.3%	116.9%	121.9%	110.8%	120.4%	140.0%	106.7%	115.8%	122.1%	119.4%	108.0%	118.6%	113.9%	125.0%	113.0%	134.4%

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RETAIL OUTLET

Discount and mass-merchandise stores are the primary retail outlets for the purchase of rodenticides, accounting for 37% of the responses; this is a decrease from 40% in 2009. Other frequently cited retail outlets are home improvement centers, with 30% of responses, an increase from 26% in 2009; hardware stores, supermarkets, and farm stores account for 9%, 6%, and 5% of the responses.

Table 6A-4: Rodenticides - Place Product Purchased Most Often? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburba n SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	382	78*	94*	144	66*	302	26**	34*	20**	253	103	26**	95*	106	66*	52*	63*
Don't know	24	5	6	8	5	19	1	3	1	14	9	1	7	8	2	3	4
	6.3%	6.4%	6.4%	5.6%	7.6%	6.3%	3.8%	8.8%	5.0%	5.5%	8.7%	3.8%	7.4%	7.5%	3.0%	5.8%	6.3%
Total answering	358	73*	88*	136	61*	283	25**	31*	19**	239	94*	25**	88*	98*	64*	49*	59*
Discount/mass merchandise store (e.g. Walmart, Kmart)	131	24	39	56	12	104	5	11	11	77	41	13	41	36	24	19	11
	36.6%	32.9%	44.3%	41.2%	19.7%	36.7%	20.0%	35.5%	57.9%	32.2%	43.6%	52.0%	46.6%	36.7%	37.5%	38.8%	18.6%
		e	E	E							j		Q	Q	Q	Q	
Lawn and garden center/nursery	18	6	0	9	3	14	4	0	0	14	4	0	2	6	2	4	4
	5.0%	8.2%	-	6.6%	4.9%	4.9%	16.0%	-	-	5.9%	4.3%	-	2.3%	6.1%	3.1%	8.2%	6.8%
		C		C	C												
Supermarket/grocery store	23	3	3	9	8	11	3	8	1	18	3	2	4	3	5	3	8
	6.4%	4.1%	3.4%	6.6%	13.1%	3.9%	12.0%	25.8%	5.3%	7.5%	3.2%	8.0%	4.5%	3.1%	7.8%	6.1%	13.6%
					bC			F									mN
Home improvement center (e.g. Home Depot, Lowes)	108	24	24	35	25	89	6	7	6	80	25	3	24	32	11	19	22
	30.2%	32.9%	27.3%	25.7%	41.0%	31.4%	24.0%	22.6%	31.6%	33.5%	26.6%	12.0%	27.3%	32.7%	17.2%	38.8%	37.3%
					cD									O		O	O
Hardware store (e.g. True Value)	33	5	10	11	7	27	2	4	0	22	9	2	10	8	7	1	7
	9.2%	6.8%	11.4%	8.1%	11.5%	9.5%	8.0%	12.9%	-	9.2%	9.6%	8.0%	11.4%	8.2%	10.9%	2.0%	11.9%
													p		p		p
Farm supply store	19	4	5	9	1	19	0	0	0	10	6	3	2	8	6	1	2
	5.3%	5.5%	5.7%	6.6%	1.6%	6.7%	-	-	-	4.2%	6.4%	12.0%	2.3%	8.2%	9.4%	2.0%	3.4%
														m	m		
Mail order/catalog	3	1	1	1	0	3	0	0	0	1	1	1	0	1	2	0	0
	0.8%	1.4%	1.1%	0.7%	-	1.1%	-	-	-	0.4%	1.1%	4.0%	-	1.0%	3.1%	-	-
															m		
Warehouse/wholesale club	10	5	1	3	1	7	3	0	0	9	1	0	2	2	2	0	4
	2.8%	6.8%	1.1%	2.2%	1.6%	2.5%	12.0%	-	-	3.8%	1.1%	-	2.3%	2.0%	3.1%	-	6.8%
		cd															p
Other	13	1	5	3	4	9	2	1	1	8	4	1	3	2	5	2	1
	3.6%	1.4%	5.7%	2.2%	6.6%	3.2%	8.0%	3.2%	5.3%	3.3%	4.3%	4.0%	3.4%	2.0%	7.8%	4.1%	1.7%
															n		
Sigma	358	73	88	136	61	283	25	31	19	239	94	25	88	98	64	49	59
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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PRODUCT USAGE

Eighty-three percent of the respondents indicate that the rodenticide was purchased for the elimination of mice, down from 88% reported in 2009. The need for the elimination of mice is consistent across all regions. Respondents also indicate problems with rat extermination, accounting for 26% of the responses, down from 28% in 2009. The need for rat elimination is most prominent in the West, with 33% of respondents reporting that rodenticides were purchased for that purpose. Purchases to control mice were fairly even across higher income levels but as high as 90% for the lowest income bracket of $25,000 and less.

Table 6A-5: Rodenticides - What Pests Were You Trying to Get Rid of? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	382	78*	94*	144	66*	302	26**	34*	20**	253	103	26**	95*	106	66*	52*	63*
Don't know	20	5	4	9	2	14	2	4	0	17	2	1	5	5	0	7	3
	5.2%	6.4%	4.3%	6.3%	3.0%	4.6%	7.7%	11.8%	-	6.7%	1.9%	3.8%	5.3%	4.7%	-	13.5%	4.8%
								f		k			o	o		mnO	o
Total answering	362	73*	90*	135	64*	288	24**	30*	20**	236	101	25**	90*	101	66*	45*	60*
Rats	94	17	14	42	21	78	9	5	2	59	29	6	22	23	18	12	19
	26.0%	23.3%	15.6%	31.1%	32.8%	27.1%	37.5%	16.7%	10.0%	25.0%	28.7%	24.0%	24.4%	22.8%	27.3%	26.7%	31.7%
				C	C												
Mice	300	63	79	109	49	239	20	24	17	191	84	25	81	85	54	34	46
	82.9%	86.3%	87.8%	80.7%	76.6%	83.0%	83.3%	80.0%	85.0%	80.9%	83.2%	100.0%	90.0%	84.2%	81.8%	75.6%	76.7%
			e										PQ				
Moles	43	9	16	13	5	34	5	2	2	21	20	2	8	10	7	5	13
	11.9%	12.3%	17.8%	9.6%	7.8%	11.8%	20.8%	6.7%	10.0%	8.9%	19.8%	8.0%	8.9%	9.9%	10.6%	11.1%	21.7%
			de								J						MNo
Squirrels raccoons	24	9	5	7	3	19	4	1	0	20	4	0	4	4	6	4	6
	6.6%	12.3%	5.6%	5.2%	4.7%	6.6%	16.7%	3.3%	-	8.5%	4.0%	-	4.4%	4.0%	9.1%	8.9%	10.0%
		d															
Other	9	1	2	3	3	4	0	3	2	9	0	0	3	2	3	1	0
	2.5%	1.4%	2.2%	2.2%	4.7%	1.4%	-	10.0%	10.0%	3.8%	-	-	3.3%	2.0%	4.5%	2.2%	-
								F		K					q		
Sigma	470	99	116	174	81	374	38	35	23	300	137	33	118	124	88	56	84
	129.8%	135.6%	128.9%	128.9%	126.6%	129.9%	158.3%	116.7%	115.0%	127.1%	135.6%	132.0%	131.1%	122.8%	133.3%	124.4%	140.0%

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6B. INSECT REPELLENTS

OVERVIEW

Overall, approximately 49% of the respondents report purchasing insect repellent products in 2011. Thirty-four percent of the total answering respondents did not use insect repellents in 2011, up from 29% in 2009. Regionally, 45% of respondents in the West report no use of insect repellents, while only 33% of respondents in the Midwest, 34% in the Northeast, and 29% in the South report no use.

Table 6B-1: Insect Repellents - When Last Bought?

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Base: Total Respondents	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
Total answering	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
One year ago or less (net)	752	161	194	282	115	584	42	82	44	532	170	50	164	195	144	122	127
	48.5%	53.0%	52.9%	51.4%	34.6%	49.8%	52.5%	38.1%	52.4%	46.8%	55.4%	45.9%	43.4%	47.3%	52.9%	49.4%	52.3%
		E	E	E		H	H		H		JI				M		M
Less than 6 months ago	368	79	92	143	54	279	22	41	26	259	85	24	78	108	64	55	63
	23.7%	26.0%	25.1%	26.0%	16.3%	23.8%	27.5%	19.1%	31.0%	22.8%	27.7%	22.0%	20.6%	26.2%	23.5%	22.3%	25.9%
		E	E	E					H		j			m			
6 months to 1 year ago	384	82	102	139	61	305	20	41	18	273	85	26	86	87	80	67	64
	24.7%	27.0%	27.8%	25.3%	18.4%	26.0%	25.0%	19.1%	21.4%	24.0%	27.7%	23.9%	22.8%	21.1%	29.4%	27.1%	26.3%
		E	E	E		H									mN	n	
More than 1 year ago	269	41	53	108	67	213	8	31	17	206	45	18	71	73	40	46	39
	17.3%	13.5%	14.4%	19.7%	20.2%	18.2%	10.0%	14.4%	20.2%	18.1%	14.7%	16.5%	18.8%	17.7%	14.7%	18.6%	16.0%
				BC	BC	g			g								
Do not use product	531	102	120	159	150	376	30	102	23	398	92	41	143	144	88	79	77
	34.2%	33.6%	32.7%	29.0%	45.2%	32.1%	37.5%	47.4%	27.4%	35.0%	30.0%	37.6%	37.8%	35.0%	32.4%	32.0%	31.7%
					BCD			FI		k							
Sigma	1,552	304	367	549	332	1,173	80	215	84	1,136	307	109	378	412	272	247	243
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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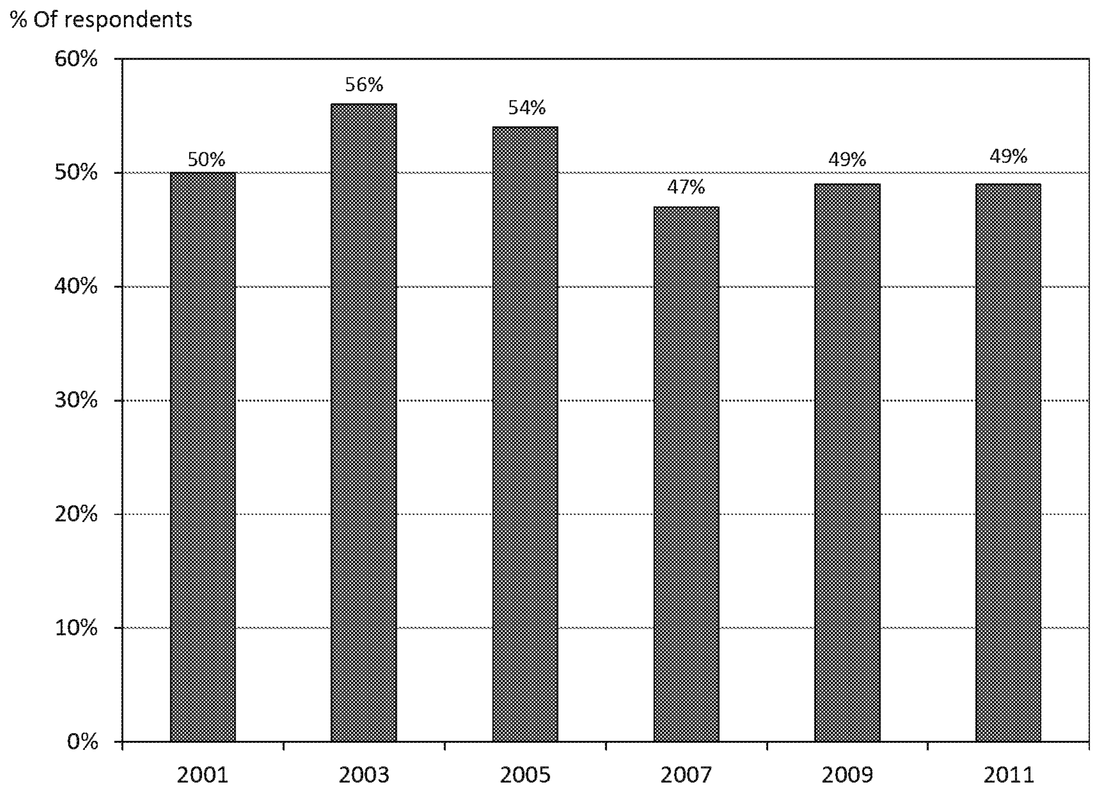
Figure 6B-1: Percentage of Respondents who Purchased Insect Repellents During the Last 12 Months, 2001 to 2011



GEOGRAPHIC REGION

Purchase incidence for insect repellents is higher in the Northeast and Midwest where 53% of respondents in each region report using them, whilst only 51% of respondents in the South and 35% of respondents in the West report their use.

POPULATION DENSITY

Respondents in suburban and urban areas are more likely to purchase insect repellents, with 55% and 47%, respectively, reporting their purchase in 2011. Forty-six percent of urban respondents report purchasing insect repellents in 2011.

FAMILY INCOME

Family income level appears to have little impact on the purchase of insect repellents in 2011, with reported use ranging from 43% to 53% across the income levels.

BRAND RECOLLECTION

Off! is the most frequently purchased insect repellent in 2011, accounting for 72% of the reported insect repellants. Deep Woods Off! ranks as the leading Off! sub-brand with 42% of respondents reporting use. Cutter ranks second with 35% of the respondents using it in 2011. Avon Skin-So-Soft ranks third with 10% of responses in 2011.

Table 6B-2: Insect Repellents - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	752	161	194	282	115	584	42*	82*	44*	532	170	50*	164	195	144	122	127
Don't know	79	20	15	30	14	58	7	8	6	55	16	8	22	20	15	10	12
	10.5%	12.4%	7.7%	10.6%	12.2%	9.9%	16.7%	9.8%	13.6%	10.3%	9.4%	16.0%	13.4%	10.3%	10.4%	8.2%	9.4%
Total answering	673	141	179	252	101	526	35*	74*	38*	477	154	42*	142	175	129	112	115
Avon Skin So Soft Bug Guard (Net)	70	22	13	24	11	43	8	15	4	54	15	1	12	19	12	8	19
	10.4%	15.6%	7.3%	9.5%	10.9%	8.2%	22.9%	20.3%	10.5%	11.3%	9.7%	2.4%	8.5%	10.9%	9.3%	7.1%	16.5%
		Cd					F	F		I							MoP
IR3535 Expedition	26	9	3	13	1	14	4	6	2	17	8	1	3	7	6	2	8
	3.9%	6.4%	1.7%	5.2%	1.0%	2.7%	11.4%	8.1%	5.3%	3.6%	5.2%	2.4%	2.1%	4.0%	4.7%	1.8%	7.0%
		CE		ce			F	F									mp
Picaridin (Sub-Net)	54	19	10	15	10	34	6	12	2	43	11	0	11	15	8	6	14
	8.0%	13.5%	5.6%	6.0%	9.9%	6.5%	17.1%	16.2%	5.3%	9.0%	7.1%	-	7.7%	8.6%	6.2%	5.4%	12.2%
		CD					F	F		L	l						p
Picaridin Spray	42	14	8	12	8	27	5	8	2	32	10	0	11	12	4	4	11
	6.2%	9.9%	4.5%	4.8%	7.9%	5.1%	14.3%	10.8%	5.3%	6.7%	6.5%	-	7.7%	6.9%	3.1%	3.6%	9.6%
		cD					F	f		l	l		o				Op
Picaridin Towelettes	17	8	3	3	3	9	2	6	0	15	2	0	1	6	4	2	4
	2.5%	5.7%	1.7%	1.2%	3.0%	1.7%	5.7%	8.1%	-	3.1%	1.3%	-	0.7%	3.4%	3.1%	1.8%	3.5%
		cD					f	Fi									
Ben's 30 Insect Repellent	10	5	0	4	1	8	0	1	1	8	2	0	1	2	2	2	3
	1.5%	3.5%	-	1.6%	1.0%	1.5%	-	1.4%	2.6%	1.7%	1.3%	-	0.7%	1.1%	1.6%	1.8%	2.6%
		C		c													
Blue Rhino SV-2000	14	5	2	4	3	9	4	1	0	13	1	0	2	4	2	1	5
	2.1%	3.5%	1.1%	1.6%	3.0%	1.7%	11.4%	1.4%	-	2.7%	0.6%	-	1.4%	2.3%	1.6%	0.9%	4.3%
							FHI										
Burt's Bees All Natural	21	6	2	7	6	15	3	3	0	14	7	0	7	6	2	5	1
	3.1%	4.3%	1.1%	2.8%	5.9%	2.9%	8.6%	4.1%	-	2.9%	4.5%	-	4.9%	3.4%	1.6%	4.5%	0.9%
		c			C		fi						q			q	
Coulston Repellent	5	1	0	2	2	4	0	1	0	3	2	0	1	2	1	1	0
	0.7%	0.7%	-	0.8%	2.0%	0.8%	-	1.4%	-	0.6%	1.3%	-	0.7%	1.1%	0.8%	0.9%	-
					c												

(Continued)

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Table 6B-2: Insect Repellents - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Cutter (Net)	235	45	73	92	25	197	12	14	12	166	53	16	51	60	49	37	38
	34.9%	31.9%	40.8%	36.5%	24.8%	37.5%	34.3%	18.9%	31.6%	34.8%	34.4%	38.1%	35.9%	34.3%	38.0%	33.0%	33.0%
			E	E		H	h										
Advanced	41	8	13	18	2	36	2	2	1	27	13	1	11	9	11	5	5
	6.1%	5.7%	7.3%	7.1%	2.0%	6.8%	5.7%	2.7%	2.6%	5.7%	8.4%	2.4%	7.7%	5.1%	8.5%	4.5%	4.3%
			e	e													
Natural	37	6	12	14	5	27	4	3	3	24	13	0	7	11	8	4	7
	5.5%	4.3%	6.7%	5.6%	5.0%	5.1%	11.4%	4.1%	7.9%	5.0%	8.4%	-	4.9%	6.3%	6.2%	3.6%	6.1%
											l						
All Family	45	13	9	17	6	33	4	5	3	38	5	2	11	10	7	10	7
	6.7%	9.2%	5.0%	6.7%	5.9%	6.3%	11.4%	6.8%	7.9%	8.0%	3.2%	4.8%	7.7%	5.7%	5.4%	8.9%	6.1%
										K							
Backwoods	120	20	40	50	10	104	4	3	9	80	28	12	23	37	25	17	18
	17.8%	14.2%	22.3%	19.8%	9.9%	19.8%	11.4%	4.1%	23.7%	16.8%	18.2%	28.6%	16.2%	21.1%	19.4%	15.2%	15.7%
			bE	E		H			H			j					
Skinsations	30	5	8	14	3	25	1	2	2	22	6	2	3	10	8	7	2
	4.5%	3.5%	4.5%	5.6%	3.0%	4.8%	2.9%	2.7%	5.3%	4.6%	3.9%	4.8%	2.1%	5.7%	6.2%	6.3%	1.7%
														q	mq	mq	
Herbal Armor	2	2	0	0	0	0	1	1	0	2	0	0	0	0	0	0	2
	0.3%	1.4%	-	-	-	-	2.9%	1.4%	-	0.4%	-	-	-	-	-	-	1.7%
		d					F	F									n
Mega Catch	6	2	1	1	2	5	1	0	0	6	0	0	1	0	1	0	4
	0.9%	1.4%	0.6%	0.4%	2.0%	1.0%	2.9%	-	-	1.3%	-	-	0.7%	-	0.8%	-	3.5%
																	NP
Mosquito (Net)	12	2	1	6	3	9	1	2	0	9	3	0	4	5	2	0	1
	1.8%	1.4%	0.6%	2.4%	3.0%	1.7%	2.9%	2.7%	-	1.9%	1.9%	-	2.8%	2.9%	1.6%	-	0.9%
													p	p			
Mosquito Magnet	5	1	1	2	1	4	0	1	0	4	1	0	1	2	1	0	1
	0.7%	0.7%	0.6%	0.8%	1.0%	0.8%	-	1.4%	-	0.8%	0.6%	-	0.7%	1.1%	0.8%	-	0.9%
Mosquito Pro	8	1	0	5	2	6	1	1	0	5	3	0	3	3	2	0	0
	1.2%	0.7%	-	2.0%	2.0%	1.1%	2.9%	1.4%	-	1.0%	1.9%	-	2.1%	1.7%	1.6%	-	-
				c	c												

(Continued)

Kline

Table 6B-2: Insect Repellents - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Off (Net)	486	99	147	176	64	386	26	46	28	340	114	32	101	132	102	77	74
	72.2%	70.2%	82.1%	69.8%	63.4%	73.4%	74.3%	62.2%	73.7%	71.3%	74.0%	76.2%	71.1%	75.4%	79.1%	68.8%	64.3%
			BDE			H								Q	pQ		
Active	72	19	13	26	14	59	2	7	4	50	15	7	18	18	19	8	9
	10.7%	13.5%	7.3%	10.3%	13.9%	11.2%	5.7%	9.5%	10.5%	10.5%	9.7%	16.7%	12.7%	10.3%	14.7%	7.1%	7.8%
		c			c										pq		
Botanicals	21	3	8	9	1	16	3	2	0	15	4	2	4	8	6	2	1
	3.1%	2.1%	4.5%	3.6%	1.0%	3.0%	8.6%	2.7%	-	3.1%	2.6%	4.8%	2.8%	4.6%	4.7%	1.8%	0.9%
							fi							q	q		
Clip On	75	15	22	30	8	57	8	5	5	55	14	6	16	21	12	11	15
	11.1%	10.6%	12.3%	11.9%	7.9%	10.8%	22.9%	6.8%	13.2%	11.5%	9.1%	14.3%	11.3%	12.0%	9.3%	9.8%	13.0%
							FH										
Deep Woods (Sub-Net)	285	59	98	101	27	236	9	23	17	193	76	16	52	71	65	48	49
	42.3%	41.8%	54.7%	40.1%	26.7%	44.9%	25.7%	31.1%	44.7%	40.5%	49.4%	38.1%	36.6%	40.6%	50.4%	42.9%	42.6%
		E	BDE	E		GH			g		j				Mn		
Deep Woods	229	48	79	83	19	190	6	18	15	155	61	13	39	58	54	40	38
	34.0%	34.0%	44.1%	32.9%	18.8%	36.1%	17.1%	24.3%	39.5%	32.5%	39.6%	31.0%	27.5%	33.1%	41.9%	35.7%	33.0%
		E	bDE	E		GH			G						M		
Deep Woods Sportsman	71	13	27	23	8	58	3	6	4	45	21	5	17	14	17	11	12
	10.5%	9.2%	15.1%	9.1%	7.9%	11.0%	8.6%	8.1%	10.5%	9.4%	13.6%	11.9%	12.0%	8.0%	13.2%	9.8%	10.4%
			de														
Family Care	73	13	31	20	9	51	8	9	5	52	16	5	21	20	18	10	4
	10.8%	9.2%	17.3%	7.9%	8.9%	9.7%	22.9%	12.2%	13.2%	10.9%	10.4%	11.9%	14.8%	11.4%	14.0%	8.9%	3.5%
			BDe				F						Q	Q	Q	q	
Mosquito Coil	42	8	9	18	7	32	3	4	3	33	8	1	13	12	8	5	4
	6.2%	5.7%	5.0%	7.1%	6.9%	6.1%	8.6%	5.4%	7.9%	6.9%	5.2%	2.4%	9.2%	6.9%	6.2%	4.5%	3.5%
													q				
Citronella Bucket	63	13	15	23	12	51	2	6	4	47	12	4	18	14	8	15	8
	9.4%	9.2%	8.4%	9.1%	11.9%	9.7%	5.7%	8.1%	10.5%	9.9%	7.8%	9.5%	12.7%	8.0%	6.2%	13.4%	7.0%
													o			o	
PowerPad Lamp	13	3	3	6	1	10	0	1	2	8	3	2	4	2	2	2	3
	1.9%	2.1%	1.7%	2.4%	1.0%	1.9%	-	1.4%	5.3%	1.7%	1.9%	4.8%	2.8%	1.1%	1.6%	1.8%	2.6%

(Continued)

Kline

Table 6B-2: Insect Repellents - Brand Last Purchased? Base: Bought Within Last Year

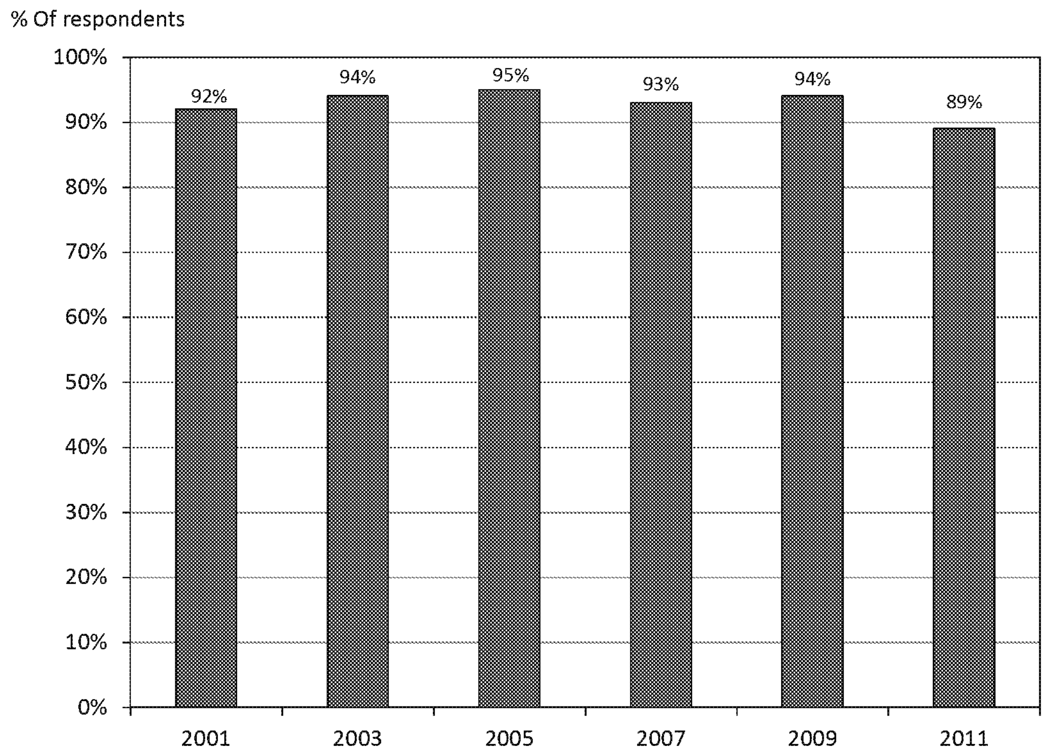
		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Repel (Net)	56	15	18	16	7	41	4	8	3	40	16	0	10	10	10	14	12
	8.3%	10.6%	10.1%	6.3%	6.9%	7.8%	11.4%	10.8%	7.9%	8.4%	10.4%	-	7.0%	5.7%	7.8%	12.5%	10.4%
										l	L					N	
100	13	3	5	4	1	10	1	1	1	7	6	0	2	2	3	5	1
	1.9%	2.1%	2.8%	1.6%	1.0%	1.9%	2.9%	1.4%	2.6%	1.5%	3.9%	-	1.4%	1.1%	2.3%	4.5%	0.9%
											j					nq	
Natural	15	6	1	7	1	10	3	2	0	13	2	0	2	2	3	2	6
	2.2%	4.3%	0.6%	2.8%	1.0%	1.9%	8.6%	2.7%	-	2.7%	1.3%	-	1.4%	1.1%	2.3%	1.8%	5.2%
		C		c			Fi										mN
Sportsman	22	5	11	6	0	16	1	2	3	14	8	0	6	5	3	6	2
	3.3%	3.5%	6.1%	2.4%	-	3.0%	2.9%	2.7%	7.9%	2.9%	5.2%	-	4.2%	2.9%	2.3%	5.4%	1.7%
		e	DE														
Lemon Eucalyptus	14	3	3	3	5	10	1	3	0	11	3	0	2	3	4	1	4
	2.1%	2.1%	1.7%	1.2%	5.0%	1.9%	2.9%	4.1%	-	2.3%	1.9%	-	1.4%	1.7%	3.1%	0.9%	3.5%
					D												
Gear Smart	2	0	2	0	0	1	1	0	0	2	0	0	1	0	0	0	1
	0.3%	-	1.1%	-	-	0.2%	2.9%	-	-	0.4%	-	-	0.7%	-	-	-	0.9%
			d				F										
Sawyer (Net)	27	11	6	5	5	19	5	3	0	24	3	0	4	6	5	6	6
	4.0%	7.8%	3.4%	2.0%	5.0%	3.6%	14.3%	4.1%	-	5.0%	1.9%	-	2.8%	3.4%	3.9%	5.4%	5.2%
		cD					FhI										
Maxi Deet	11	4	2	4	1	7	3	1	0	9	2	0	0	1	4	3	3
	1.6%	2.8%	1.1%	1.6%	1.0%	1.3%	8.6%	1.4%	-	1.9%	1.3%	-	-	0.6%	3.1%	2.7%	2.6%
							Fhi								Mn	m	m
20% PICARIDIN	10	4	2	3	1	7	2	1	0	9	1	0	2	3	2	1	2
	1.5%	2.8%	1.1%	1.2%	1.0%	1.3%	5.7%	1.4%	-	1.9%	0.6%	-	1.4%	1.7%	1.6%	0.9%	1.7%
							F										
Controlled Release	6	1	3	1	1	4	1	1	0	5	1	0	2	0	1	0	3
	0.9%	0.7%	1.7%	0.4%	1.0%	0.8%	2.9%	1.4%	-	1.0%	0.6%	-	1.4%	-	0.8%	-	2.6%
																	Np

(Continued)

Table 6B-2: Insect Repellents - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Ultra 30	6	3	0	1	2	6	0	0	0	4	2	0	1	2	1	2	0
	0.9%	2.1%	-	0.4%	2.0%	1.1%	-	-	-	0.8%	1.3%	-	0.7%	1.1%	0.8%	1.8%	-
		c			c												
Other	30	2	4	15	9	21	2	4	3	21	7	2	7	9	4	5	5
	4.5%	1.4%	2.2%	6.0%	8.9%	4.0%	5.7%	5.4%	7.9%	4.4%	4.5%	4.8%	4.9%	5.1%	3.1%	4.5%	4.3%
				Bc	BC												
Sigma	1217	272	342	448	155	942	86	117	72	865	287	65	261	315	253	189	199
	180.8%	192.9%	191.1%	177.8%	153.5%	179.1%	245.7%	158.1%	189.5%	181.3%	186.4%	154.8%	183.8%	180.0%	196.1%	168.8%	173.0%

Figure 6B-2: Percentage of Purchasers Who Recall the Last Brand of Insect Repellent They Purchased, 2001 to 2011



PRODUCT FORM

Aerosols and pump spray liquids are the most commonly purchased form of insect repellent, accounting for 61% and 29% of the responses in 2011, respectively. Candles follow with 17% of the responses. There are no significant differences between population densities or income levels with regard to the product form that is preferred.

Table 6B-3: Insect Repellents - What Form was the Product? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	752	161	194	282	115	584	42*	82*	44*	532	170	50*	164	195	144	122	127
Don't know	30	7	4	13	6	25	2	3	0	24	3	3	10	8	3	5	4
	4.0%	4.3%	2.1%	4.6%	5.2%	4.3%	4.8%	3.7%	-	4.5%	1.8%	6.0%	6.1%	4.1%	2.1%	4.1%	3.1%
													o				
Total answering	722	154	190	269	109	559	40*	79*	44*	508	167	47*	154	187	141	117	123
Aerosol	440	94	134	162	50	345	25	36	34	301	105	34	99	120	85	68	68
	60.9%	61.0%	70.5%	60.2%	45.9%	61.7%	62.5%	45.6%	77.3%	59.3%	62.9%	72.3%	64.3%	64.2%	60.3%	58.1%	55.3%
		E	bDE	E		H	h		FH			j					
Candle	120	29	23	49	19	91	6	17	6	90	24	6	33	37	18	14	18
	16.6%	18.8%	12.1%	18.2%	17.4%	16.3%	15.0%	21.5%	13.6%	17.7%	14.4%	12.8%	21.4%	19.8%	12.8%	12.0%	14.6%
		c		c									oP	op			
CO2 device	22	8	5	6	3	17	3	2	0	16	4	2	4	6	3	2	7
	3.0%	5.2%	2.6%	2.2%	2.8%	3.0%	7.5%	2.5%	-	3.1%	2.4%	4.3%	2.6%	3.2%	2.1%	1.7%	5.7%
							i										
Coil	49	12	9	20	8	34	7	5	3	44	4	1	10	14	10	6	9
	6.8%	7.8%	4.7%	7.4%	7.3%	6.1%	17.5%	6.3%	6.8%	8.7%	2.4%	2.1%	6.5%	7.5%	7.1%	5.1%	7.3%
							Fh			K							
Lamp	39	7	8	19	5	30	2	4	3	30	7	2	9	6	10	6	8
	5.4%	4.5%	4.2%	7.1%	4.6%	5.4%	5.0%	5.1%	6.8%	5.9%	4.2%	4.3%	5.8%	3.2%	7.1%	5.1%	6.5%
Lotion	88	21	20	32	15	69	6	9	4	64	21	3	21	19	22	12	14
	12.2%	13.6%	10.5%	11.9%	13.8%	12.3%	15.0%	11.4%	9.1%	12.6%	12.6%	6.4%	13.6%	10.2%	15.6%	10.3%	11.4%
Pad	24	7	10	6	1	19	2	3	0	17	5	2	4	7	1	3	9
	3.3%	4.5%	5.3%	2.2%	0.9%	3.4%	5.0%	3.8%	-	3.3%	3.0%	4.3%	2.6%	3.7%	0.7%	2.6%	7.3%
		e	de											o			mOp
Pump spray liquid	212	50	51	79	32	167	9	25	11	145	55	12	43	51	45	38	35
	29.4%	32.5%	26.8%	29.4%	29.4%	29.9%	22.5%	31.6%	25.0%	28.5%	32.9%	25.5%	27.9%	27.3%	31.9%	32.5%	28.5%
Roll-on	17	5	5	5	2	13	1	2	1	14	3	0	4	3	2	3	5
	2.4%	3.2%	2.6%	1.9%	1.8%	2.3%	2.5%	2.5%	2.3%	2.8%	1.8%	-	2.6%	1.6%	1.4%	2.6%	4.1%
Stick	14	4	4	6	0	12	1	0	1	10	4	0	6	1	3	1	3
	1.9%	2.6%	2.1%	2.2%	-	2.1%	2.5%	-	2.3%	2.0%	2.4%	-	3.9%	0.5%	2.1%	0.9%	2.4%
		e											N				
Towelette	36	12	8	12	4	24	3	6	3	28	8	0	9	14	9	3	1
	5.0%	7.8%	4.2%	4.5%	3.7%	4.3%	7.5%	7.6%	6.8%	5.5%	4.8%	-	5.8%	7.5%	6.4%	2.6%	0.8%
										l			Q	pQ	Q		
Other	23	5	3	10	5	12	4	5	2	20	2	1	5	6	5	4	3
	3.2%	3.2%	1.6%	3.7%	4.6%	2.1%	10.0%	6.3%	4.5%	3.9%	1.2%	2.1%	3.2%	3.2%	3.5%	3.4%	2.4%
							F	F		k							
Sigma	1084	254	280	406	144	833	69	114	68	779	242	63	247	284	213	160	180
	150.1%	164.9%	147.4%	150.9%	132.1%	149.0%	172.5%	144.3%	154.5%	153.3%	144.9%	134.0%	160.4%	151.9%	151.1%	136.8%	146.3%

RETAIL OUTLET

Discount and mass-merchandise stores are the most frequently mentioned type of retail outlet for the purchase of insect repellents, accounting for 50% of the responses in 2011, down from 53% in 2009. Home improvement centers rank second with 25%, up from 21% in 2009. Supermarkets follow with 7%. Families with an income higher than $100,000 prefer home improvement centers to discount and mass merchandise stores, whereas all other income categories, regions, and populations densities do not.

PRODUCT USAGE

The majority of the respondents are attempting to repel mosquitoes. Ninety percent of the respondents indicate that mosquitoes are the target for insect repellent purchases in 2011, slightly down from 93% in 2009. Gnats, flies, and ticks account for 27%, 25%, and 20% of the responses, respectively.

Table 6B-4: Insect Repellents - Place Product Purchased Most Often? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	752	161	194	282	115	584	42*	82*	44*	532	170	50*	164	195	144	122	127
Don't know	31	8	4	12	7	26	2	2	1	24	6	1	8	11	7	3	2
	4.1%	5.0%	2.1%	4.3%	6.1%	4.5%	4.8%	2.4%	2.3%	4.5%	3.5%	2.0%	4.9%	5.6%	4.9%	2.5%	1.6%
					c									q			
Total answering	721	153	190	270	108	558	40*	80*	43*	508	164	49*	156	184	137	119	125
Discount/mass merchandise store (e.g. Walmart, Kmart)	358	65	109	142	42	282	16	37	23	236	91	31	89	107	66	55	41
	49.7%	42.5%	57.4%	52.6%	38.9%	50.5%	40.0%	46.3%	53.5%	46.5%	55.5%	63.3%	57.1%	58.2%	48.2%	46.2%	32.8%
			BE	BE							J	J	pQ	oPQ	Q	Q	
Lawn and garden center/nursery	34	6	5	17	6	23	7	4	0	27	6	1	5	8	6	10	5
	4.7%	3.9%	2.6%	6.3%	5.6%	4.1%	17.5%	5.0%	-	5.3%	3.7%	2.0%	3.2%	4.3%	4.4%	8.4%	4.0%
				c			FHI									m	
Supermarket/grocery store	52	15	8	16	13	36	2	10	4	41	8	3	12	7	14	10	9
	7.2%	9.8%	4.2%	5.9%	12.0%	6.5%	5.0%	12.5%	9.3%	8.1%	4.9%	6.1%	7.7%	3.8%	10.2%	8.4%	7.2%
		C			CD			f							N	n	
Home improvement center (e.g. Home Depot, Lowes)	181	39	44	71	27	142	9	16	14	140	31	10	26	40	33	30	52
	25.1%	25.5%	23.2%	26.3%	25.0%	25.4%	22.5%	20.0%	32.6%	27.6%	18.9%	20.4%	16.7%	21.7%	24.1%	25.2%	41.6%
										K						m	MNOP
Hardware store (e.g. True Value)	37	10	12	10	5	33	1	3	0	25	10	2	5	8	12	5	7
	5.1%	6.5%	6.3%	3.7%	4.6%	5.9%	2.5%	3.8%	-	4.9%	6.1%	4.1%	3.2%	4.3%	8.8%	4.2%	5.6%
															M		
Farm supply store	20	4	8	3	5	15	1	2	2	12	6	2	8	7	1	0	4
	2.8%	2.6%	4.2%	1.1%	4.6%	2.7%	2.5%	2.5%	4.7%	2.4%	3.7%	4.1%	5.1%	3.8%	0.7%	-	3.2%
			D		D								OP	oP			p
Mail order/catalog	7	0	0	6	1	6	1	0	0	6	1	0	3	1	1	2	0
	1.0%	-	-	2.2%	0.9%	1.1%	2.5%	-	-	1.2%	0.6%	-	1.9%	0.5%	0.7%	1.7%	-
				bC													
Warehouse/wholesale club	15	6	1	3	5	11	2	2	0	8	7	0	4	4	2	3	2
	2.1%	3.9%	0.5%	1.1%	4.6%	2.0%	5.0%	2.5%	-	1.6%	4.3%	-	2.6%	2.2%	1.5%	2.5%	1.6%
		Cd			CD						J						
Other	17	8	3	2	4	10	1	6	0	13	4	0	4	2	2	4	5
	2.4%	5.2%	1.6%	0.7%	3.7%	1.8%	2.5%	7.5%	-	2.6%	2.4%	-	2.6%	1.1%	1.5%	3.4%	4.0%
		cD			D			Fi									n
Sigma	721	153	190	270	108	558	40	80	43	508	164	49	156	184	137	119	125
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Kline

Table 6B-5: Insect Repellents - What Pests Were You Trying To Get Rid Of? Base: Bought Within Last Year		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	752	161	194	282	115	584	42*	82*	44*	532	170	50*	164	195	144	122	127
Don't know	27	6	3	15	3	24	1	2	0	21	2	4	7	5	4	6	5
	3.6%	3.7%	1.5%	5.3%	2.6%	4.1%	2.4%	2.4%	-	3.9%	1.2%	8.0%	4.3%	2.6%	2.8%	4.9%	3.9%
				C						k		K					
Total answering	725	155	191	267	112	560	41*	80*	44*	511	168	46*	157	190	140	116	122
Flies	180	41	39	71	29	131	11	25	13	122	46	12	48	41	36	26	29
	24.8%	26.5%	20.4%	26.6%	25.9%	23.4%	26.8%	31.3%	29.5%	23.9%	27.4%	26.1%	30.6%	21.6%	25.7%	22.4%	23.8%
													n				
Gnats	192	42	47	80	23	139	14	22	17	119	54	19	46	50	43	31	22
	26.5%	27.1%	24.6%	30.0%	20.5%	24.8%	34.1%	27.5%	38.6%	23.3%	32.1%	41.3%	29.3%	26.3%	30.7%	26.7%	18.0%
				e					F		J	J	Q	q	Q		
Mosquitoes	654	146	177	243	88	517	34	63	40	460	152	42	143	173	125	106	107
	90.2%	94.2%	92.7%	91.0%	78.6%	92.3%	82.9%	78.8%	90.9%	90.0%	90.5%	91.3%	91.1%	91.1%	89.3%	91.4%	87.7%
		E	E	E		GH			h								
Ticks	143	35	40	54	14	109	9	14	11	94	36	13	35	41	26	22	19
	19.7%	22.6%	20.9%	20.2%	12.5%	19.5%	22.0%	17.5%	25.0%	18.4%	21.4%	28.3%	22.3%	21.6%	18.6%	19.0%	15.6%
		E	e	e													
Other	30	3	7	9	11	18	4	5	3	20	7	3	7	7	3	8	5
	4.1%	1.9%	3.7%	3.4%	9.8%	3.2%	9.8%	6.3%	6.8%	3.9%	4.2%	6.5%	4.5%	3.7%	2.1%	6.9%	4.1%
					BCD		F									o	
Sigma	1,199	267	310	457	165	914	72	129	84	815	295	89	279	312	233	193	182
	165.4%	172.3%	162.3%	171.2%	147.3%	163.2%	175.6%	161.3%	190.9%	159.5%	175.6%	193.5%	177.7%	164.2%	166.4%	166.4%	149.2%

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6C. FUNGICIDES

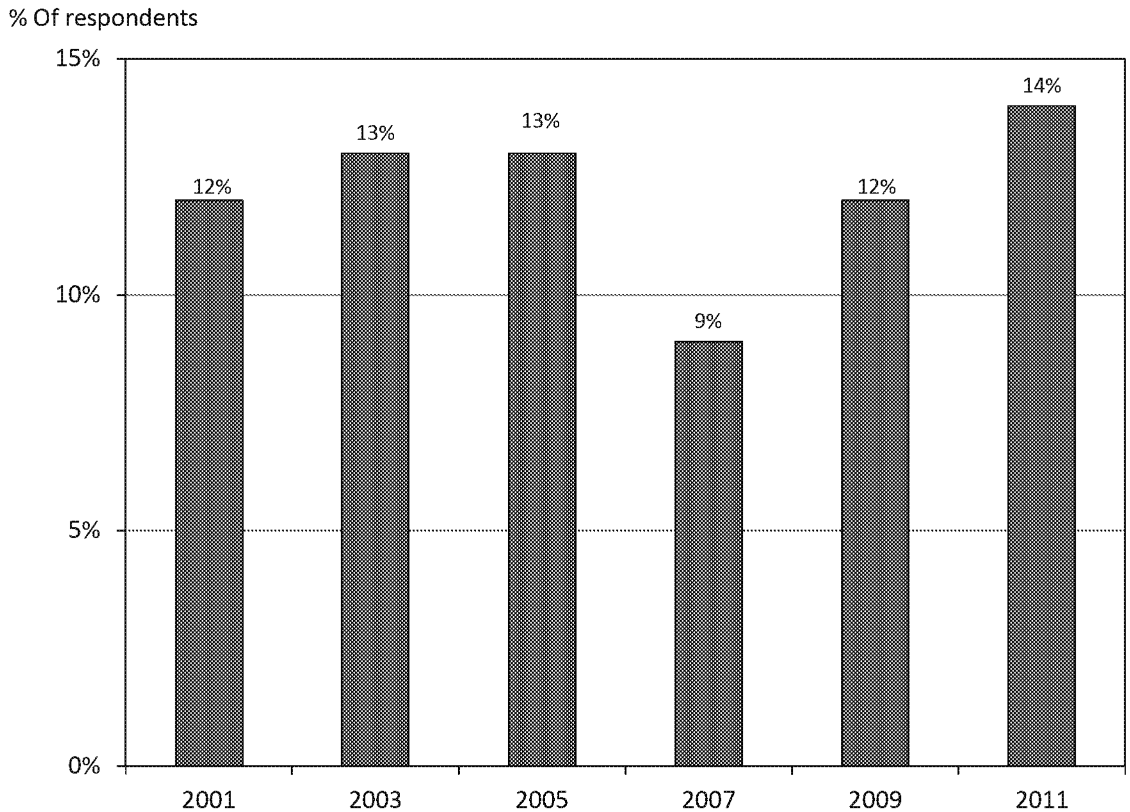
OVERVIEW

Fungicides are treatment products for mildew, blight, rust, mold, and other plant diseases. Use of these products is generally limited to a small group of knowledgeable gardeners, although some consumers also purchase lawn fungicides. In 2011, only 14% of the respondents report purchasing fungicides during the period, up from 12% in 2009. Seventy-four percent of the answering respondents indicate that they do not use fungicides, up from 73% in 2009.

Table 6C-1: Fungicides - When Last Bought?

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Base: Total Respondents	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
Total answering	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
One year ago or less (net)	217	38	46	85	48	166	17	26	8	168	37	12	46	41	41	35	54
	14.0%	12.5%	12.5%	15.5%	14.5%	14.2%	21.3%	12.1%	9.5%	14.8%	12.1%	11.0%	12.2%	10.0%	15.1%	14.2%	22.2%
							fHI								N		MNOP
Less than 6 months ago	90	17	17	42	14	72	6	9	3	69	19	2	17	17	21	9	26
	5.8%	5.6%	4.6%	7.7%	4.2%	6.1%	7.5%	4.2%	3.6%	6.1%	6.2%	1.8%	4.5%	4.1%	7.7%	3.6%	10.7%
				cE						l	l				mNP		MNP
6 months to 1 year ago	127	21	29	43	34	94	11	17	5	99	18	10	29	24	20	26	28
	8.2%	6.9%	7.9%	7.8%	10.2%	8.0%	13.8%	7.9%	6.0%	8.7%	5.9%	9.2%	7.7%	5.8%	7.4%	10.5%	11.5%
							fi									N	N
More than 1 year ago	193	38	39	80	36	151	9	20	13	144	36	13	40	42	35	33	43
	12.4%	12.5%	10.6%	14.6%	10.8%	12.9%	11.3%	9.3%	15.5%	12.7%	11.7%	11.9%	10.6%	10.2%	12.9%	13.4%	17.7%
				c													MN
Do not use product	1142	228	282	384	248	856	54	169	63	824	234	84	292	329	196	179	146
	73.6%	75.0%	76.8%	69.9%	74.7%	73.0%	67.5%	78.6%	75.0%	72.5%	76.2%	77.1%	77.2%	79.9%	72.1%	72.5%	60.1%
			D					fG					Q	OPQ	Q	Q	
Sigma	1,552	304	367	549	332	1,173	80	215	84	1,136	307	109	378	412	272	247	243
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Figure 6C-1: Percentage of Respondents who Purchased Fungicides During the Last 12 Months, 2001 to 2011



GEOGRAPHIC REGION

Purchase incidence for fungicides is slightly higher in the South, where 16% of the respondents report buying these products in the last year, and lowest among respondents in the Northeast and the Midwest, where 13% of respondents for each region indicate a purchase.

POPULATION DENSITY

The distribution of respondents using fungicides is lower for rural respondents at 11% and highest for urban respondents with 15%.

FAMILY INCOME

The purchase of fungicides appears to vary little across income levels, with each income bracket averaging 13% with an exception of families with incomes higher than $100,000 where 22% of respondents report using them.

BRAND RECOLLECTION

The Ortho line remains the most frequently mentioned brand of fungicide purchased, accounting for a combined 35.3% of the responses in 2011, down from 53% in 2009. It is closely followed by Bayer with 34.6%, up from 22% in 2009. Bonide, Scotts, and Garden Safe follow with 20%, 13%, and 10%, respectively. Ortho Funginex is the leading brand, with 14% of respondents reporting purchase in 2011.

Table 6C-2: Fungicides - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	217	38*	46*	85*	48*	166	17**	26**	8**	168	37*	12**	46*	41*	41*	35*	54*
Don't know	61	9	21	24	7	47	3	9	2	48	10	3	15	9	11	13	13
	28.1%	23.7%	45.7%	28.2%	14.6%	28.3%	17.6%	34.6%	25.0%	28.6%	27.0%	25.0%	32.6%	22.0%	26.8%	37.1%	24.1%
			BDE	e													
Total answering	156	29**	25**	61*	41*	119	14**	17**	6**	120	27**	9**	31*	32*	30*	22**	41*
Bayer (Net)	54	16	12	15	11	36	8	9	1	37	16	1	13	8	10	8	15
	34.6%	55.2%	48.0%	24.6%	26.8%	30.3%	57.1%	52.9%	16.7%	30.8%	59.3%	11.1%	41.9%	25.0%	33.3%	36.4%	36.6%
Bayer Advanced Fungus Control	25	9	3	9	4	18	5	1	1	18	6	1	5	4	6	2	8
	16.0%	31.0%	12.0%	14.8%	9.8%	15.1%	35.7%	5.9%	16.7%	15.0%	22.2%	11.1%	16.1%	12.5%	20.0%	9.1%	19.5%
Bayer Advanced 2 in 1	27	12	5	5	5	19	4	4	0	17	10	0	7	3	5	5	7
	17.3%	41.4%	20.0%	8.2%	12.2%	16.0%	28.6%	23.5%	-	14.2%	37.0%	-	22.6%	9.4%	16.7%	22.7%	17.1%
Bayer Advanced Natria	18	4	5	5	4	11	3	4	0	15	3	0	2	3	2	2	9
	11.5%	13.8%	20.0%	8.2%	9.8%	9.2%	21.4%	23.5%	-	12.5%	11.1%	-	6.5%	9.4%	6.7%	9.1%	22.0%
																	mo
Bonide (Net)	31	6	5	10	10	19	8	4	0	26	4	1	4	6	4	3	14
	19.9%	20.7%	20.0%	16.4%	24.4%	16.0%	57.1%	23.5%	-	21.7%	14.8%	11.1%	12.9%	18.8%	13.3%	13.6%	34.1%
																	Mo
Bonide Fung-onil	21	6	3	6	6	11	7	3	0	17	3	1	2	5	2	2	10
	13.5%	20.7%	12.0%	9.8%	14.6%	9.2%	50.0%	17.6%	-	14.2%	11.1%	11.1%	6.5%	15.6%	6.7%	9.1%	24.4%
																	Mo
Bonide Infuse	13	1	2	4	6	10	2	1	0	12	1	0	2	1	2	2	6
	8.3%	3.4%	8.0%	6.6%	14.6%	8.4%	14.3%	5.9%	-	10.0%	3.7%	-	6.5%	3.1%	6.7%	9.1%	14.6%
Ecosmart Technologies Fungicide	10	3	1	3	3	8	1	1	0	10	0	0	0	1	3	0	6
	6.4%	10.3%	4.0%	4.9%	7.3%	6.7%	7.1%	5.9%	-	8.3%	-	-	-	3.1%	10.0%	-	14.6%
															m		M

(Continued)

Table 6C-2: Fungicides - Brand Last Purchased? Base: Bought Within Last Year		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Espoma RTU Garden Fungicide	4	2	0	1	1	3	0	1	0	4	0	0	0	0	0	0	4
	2.6%	6.9%	-	1.6%	2.4%	2.5%	-	5.9%	-	3.3%	-	-	-	-	-	-	9.8%
																	mno
Fertilome	12	4	2	3	3	7	4	0	1	10	2	0	0	2	3	0	7
	7.7%	13.8%	8.0%	4.9%	7.3%	5.9%	28.6%	-	16.7%	8.3%	7.4%	-	-	6.3%	10.0%	-	17.1%
															m		M
Garden Safe Fungicide	16	3	3	6	4	14	1	1	0	12	3	1	4	2	6	2	2
	10.3%	10.3%	12.0%	9.8%	9.8%	11.8%	7.1%	5.9%	-	10.0%	11.1%	11.1%	12.9%	6.3%	20.0%	9.1%	4.9%
															q		
Green Light (Net)	11	2	1	4	4	5	2	4	0	9	2	0	1	0	1	1	8
	7.1%	6.9%	4.0%	6.6%	9.8%	4.2%	14.3%	23.5%	-	7.5%	7.4%	-	3.2%	-	3.3%	4.5%	19.5%
																	MNO
Green Light Fung-Away	8	1	1	3	3	5	1	2	0	7	1	0	1	0	1	1	5
	5.1%	3.4%	4.0%	4.9%	7.3%	4.2%	7.1%	11.8%	-	5.8%	3.7%	-	3.2%	-	3.3%	4.5%	12.2%
																	N
Green Light Rose Defense	5	2	1	1	1	1	2	2	0	4	1	0	1	0	0	0	4
	3.2%	6.9%	4.0%	1.6%	2.4%	0.8%	14.3%	11.8%	-	3.3%	3.7%	-	3.2%	-	-	-	9.8%
																	no
Gulfstream Home & Garden Fungicide	3	2	0	1	0	1	1	0	1	2	1	0	0	1	0	0	2
	1.9%	6.9%	-	1.6%	-	0.8%	7.1%	-	16.7%	1.7%	3.7%	-	-	3.1%	-	-	4.9%
Hi-Yield	5	3	0	2	0	3	2	0	0	5	0	0	0	1	0	2	2
	3.2%	10.3%	-	3.3%	-	2.5%	14.3%	-	-	4.2%	-	-	-	3.1%	-	9.1%	4.9%
Ortho (Net)	55	10	9	21	15	44	6	2	3	43	8	4	11	11	12	4	17
	35.3%	34.5%	36.0%	34.4%	36.6%	37.0%	42.9%	11.8%	50.0%	35.8%	29.6%	44.4%	35.5%	34.4%	40.0%	18.2%	41.5%
Ortho Garden Disease	14	3	3	6	2	10	2	1	1	10	3	1	2	3	4	1	4
	9.0%	10.3%	12.0%	9.8%	4.9%	8.4%	14.3%	5.9%	16.7%	8.3%	11.1%	11.1%	6.5%	9.4%	13.3%	4.5%	9.8%

(Continued)

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Table 6C-2: Fungicides - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Ortho Orthenex	5	4	0	1	0	2	3	0	0	5	0	0	2	2	0	0	1
	3.2%	13.8%	-	1.6%	-	1.7%	21.4%	-	-	4.2%	-	-	6.5%	6.3%	-	-	2.4%
Ortho Funginex	22	2	2	12	6	19	1	0	2	16	4	2	5	4	4	2	7
	14.1%	6.9%	8.0%	19.7%	14.6%	16.0%	7.1%	-	33.3%	13.3%	14.8%	22.2%	16.1%	12.5%	13.3%	9.1%	17.1%
Ortho Disease-B-Gon	8	2	1	1	4	5	2	1	0	7	1	0	1	3	2	0	2
	5.1%	6.9%	4.0%	1.6%	9.8%	4.2%	14.3%	5.9%	-	5.8%	3.7%	-	3.2%	9.4%	6.7%	-	4.9%
					d												
Ortho Moss-B-Gon	4	1	0	0	3	4	0	0	0	4	0	0	0	0	2	1	1
	2.6%	3.4%	-	-	7.3%	3.4%	-	-	-	3.3%	-	-	-	-	6.7%	4.5%	2.4%
					D												
Ortho Rose Pride Disease Control	14	2	4	4	4	13	0	0	1	10	2	2	3	1	6	0	4
	9.0%	6.9%	16.0%	6.6%	9.8%	10.9%	-	-	16.7%	8.3%	7.4%	22.2%	9.7%	3.1%	20.0%	-	9.8%
															N		
Scotts (Net)	20	5	1	9	5	18	2	0	0	14	4	2	4	5	7	4	0
	12.8%	17.2%	4.0%	14.8%	12.2%	15.1%	14.3%	-	-	11.7%	14.8%	22.2%	12.9%	15.6%	23.3%	18.2%	-
													Q	Q	Q		
Scotts Lawn Fungus	19	5	1	8	5	17	2	0	0	13	4	2	4	4	7	4	0
	12.2%	17.2%	4.0%	13.1%	12.2%	14.3%	14.3%	-	-	10.8%	14.8%	22.2%	12.9%	12.5%	23.3%	18.2%	-
													Q	Q	Q		
Scotts Moss Control Granules	1	0	0	1	0	1	0	0	0	1	0	0	0	1	0	0	0
	0.6%	-	-	1.6%	-	0.8%	-	-	-	0.8%	-	-	-	3.1%	-	-	-
Safer Garden Fungicide	6	1	0	1	4	5	1	0	0	5	1	0	1	1	1	1	2
	3.8%	3.4%	-	1.6%	9.8%	4.2%	7.1%	-	-	4.2%	3.7%	-	3.2%	3.1%	3.3%	4.5%	4.9%
					d												
Spectracide Immunox (Net)	6	0	0	4	2	6	0	0	0	5	1	0	0	3	2	0	1
	3.8%	-	-	6.6%	4.9%	5.0%	-	-	-	4.2%	3.7%	-	-	9.4%	6.7%	-	2.4%
														m			

(Continued)

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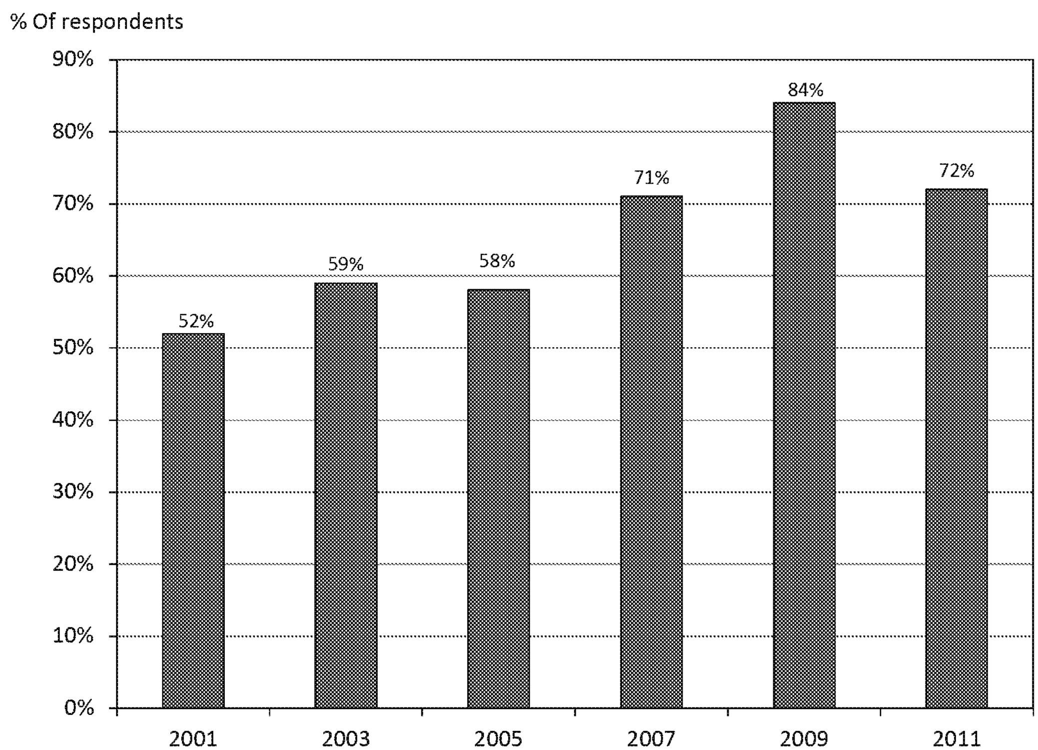
Table 6C-2: Fungicides - Brand Last Purchased? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Spectracide Immunox Garden	4	0	0	3	1	4	0	0	0	3	1	0	0	2	2	0	0
	2.6%	-	-	4.9%	2.4%	3.4%	-	-	-	2.5%	3.7%	-	-	6.3%	6.7%	-	-
Spectracide Immunox Lawn	3	0	0	2	1	3	0	0	0	2	1	0	0	1	1	0	1
	1.9%	-	-	3.3%	2.4%	2.5%	-	-	-	1.7%	3.7%	-	-	3.1%	3.3%	-	2.4%
Other	3	1	0	2	0	1	1	1	0	3	0	0	0	1	2	0	0
	1.9%	3.4%	-	3.3%	-	0.8%	7.1%	5.9%	-	2.5%	-	-	-	3.1%	6.7%	-	-
Sigma	270	73	37	90	70	195	45	23	7	212	48	10	42	46	61	27	94
	173.1%	251.7%	148.0%	147.5%	170.7%	163.9%	321.4%	135.3%	116.7%	176.7%	177.8%	111.1%	135.5%	143.8%	203.3%	122.7%	229.3%

Figure 6C-2: Percentage of Purchasers Who Recall the Last Brand of Fungicide they Purchased, 2001 to 2011



PRODUCT FORM

Liquid concentrates continue to be the most commonly purchased form of fungicides, accounting for 33% of the responses in 2011, up from 29% in 2009. Ready-to-use sprays, granules, dust, and aerosol sprays follow closely with 27%, 26%, 22%, and 19%, respectively. The product forms used vary somewhat across the different regions.

Table 6C-3: Fungicides - What Form Was The Product? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	217	38*	46*	85*	48*	166	17**	26**	8**	168	37*	12**	46*	41*	41*	35*	54*
Don't know	20	2	6	10	2	15	1	2	2	16	3	1	6	2	6	3	3
	9.2%	5.3%	13.0%	11.8%	4.2%	9.0%	5.9%	7.7%	25.0%	9.5%	8.1%	8.3%	13.0%	4.9%	14.6%	8.6%	5.6%
Total answering	197	36*	40*	75*	46*	151	16**	24**	6**	152	34*	11**	40*	39*	35*	32*	51*
Aerosol spray	38	12	4	15	7	23	8	7	0	29	7	2	6	6	8	4	14
	19.3%	33.3%	10.0%	20.0%	15.2%	15.2%	50.0%	29.2%	-	19.1%	20.6%	18.2%	15.0%	15.4%	22.9%	12.5%	27.5%
		Ce															
Dust	43	7	9	16	11	31	4	6	2	32	7	4	9	9	6	4	15
	21.8%	19.4%	22.5%	21.3%	23.9%	20.5%	25.0%	25.0%	33.3%	21.1%	20.6%	36.4%	22.5%	23.1%	17.1%	12.5%	29.4%
																	p
Granules	51	13	11	16	11	40	6	4	1	38	11	2	5	12	9	9	16
	25.9%	36.1%	27.5%	21.3%	23.9%	26.5%	37.5%	16.7%	16.7%	25.0%	32.4%	18.2%	12.5%	30.8%	25.7%	28.1%	31.4%
														m			M
Liquid concentrate	64	14	10	22	18	48	9	7	0	53	10	1	13	10	11	11	19
	32.5%	38.9%	25.0%	29.3%	39.1%	31.8%	56.3%	29.2%	-	34.9%	29.4%	9.1%	32.5%	25.6%	31.4%	34.4%	37.3%
Ready-to-use (RTU) with trigger spray	53	14	8	19	12	43	3	6	1	44	6	3	11	9	10	12	11
	26.9%	38.9%	20.0%	25.3%	26.1%	28.5%	18.8%	25.0%	16.7%	28.9%	17.6%	27.3%	27.5%	23.1%	28.6%	37.5%	21.6%
		c															
RTU liquid with hose sprayer	17	4	2	9	2	10	5	1	1	12	4	1	4	3	4	0	6
	8.6%	11.1%	5.0%	12.0%	4.3%	6.6%	31.3%	4.2%	16.7%	7.9%	11.8%	9.1%	10.0%	7.7%	11.4%	-	11.8%
													p		p		P
Water soluble powder	8	2	3	2	1	6	0	0	2	6	1	1	1	4	1	0	2
	4.1%	5.6%	7.5%	2.7%	2.2%	4.0%	-	-	33.3%	3.9%	2.9%	9.1%	2.5%	10.3%	2.9%	-	3.9%
														p			
Other	2	0	0	2	0	0	1	1	0	2	0	0	0	1	1	0	0
	1.0%	-	-	2.7%	-	-	6.3%	4.2%	-	1.3%	-	-	-	2.6%	2.9%	-	-
Sigma	276	66	47	101	62	201	36	32	7	216	46	14	49	54	50	40	83
	140.1%	183.3%	117.5%	134.7%	134.8%	133.1%	225.0%	133.3%	116.7%	142.1%	135.3%	127.3%	122.5%	138.5%	142.9%	125.0%	162.7%

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RETAIL OUTLET

Home improvement centers are the leading retail outlet for fungicides, accounting for 31% of the responses in 2011, a slight decrease from 37% in 2009. Discount or mass merchandise stores rank second with 21% of the responses, a decrease from 25% in 2009, followed by lawn and garden centers with 16%, an increase from 12% in 2009. All regions, apart from the Midwest prefer to buy their fungicides at home improvement centers rather than discount and mass merchandise stores. The Midwest has no preference between these two retain outlets, reporting 28% for each.

PRODUCT USAGE

Fungicide products are used to treat a variety of problems, including leaf fungus, mold, mildew, preventative use, and blight, with 38%, 34%, 32%, 20%, and 20%, respectively, reporting using them to control the listed fungal problems.

Table 6C-4: Fungicides - Place Product Purchased Most Often? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	217	38*	46*	85*	48*	166	17**	26**	8**	168	37*	12**	46*	41*	41*	35*	54*
Don't know	16	2	6	4	4	12	0	3	1	11	3	2	4	6	1	3	2
	7.4%	5.3%	13.0%	4.7%	8.3%	7.2%	-	11.5%	12.5%	6.5%	8.1%	16.7%	8.7%	14.6%	2.4%	8.6%	3.7%
			d											oq			
Total answering	201	36*	40*	81*	44*	154	17**	23**	7**	157	34*	10**	42*	35*	40*	32*	52*
Discount/mass merchandise store (e.g. Walmart, Kmart)	43	7	11	17	8	32	2	5	4	28	10	5	11	9	9	6	8
	21.4%	19.4%	27.5%	21.0%	18.2%	20.8%	11.8%	21.7%	57.1%	17.8%	29.4%	50.0%	26.2%	25.7%	22.5%	18.8%	15.4%
Lawn and garden center/nursery	32	4	6	15	7	26	2	2	2	26	3	3	7	9	4	7	5
	15.9%	11.1%	15.0%	18.5%	15.9%	16.9%	11.8%	8.7%	28.6%	16.6%	8.8%	30.0%	16.7%	25.7%	10.0%	21.9%	9.6%
														oQ			
Supermarket/grocery store	14	3	1	5	5	6	3	5	0	10	4	0	2	2	2	3	5
	7.0%	8.3%	2.5%	6.2%	11.4%	3.9%	17.6%	21.7%	-	6.4%	11.8%	-	4.8%	5.7%	5.0%	9.4%	9.6%
Home improvement center (e.g. Home Depot, Lowes)	63	10	11	30	12	52	2	8	1	55	8	0	12	6	14	11	20
	31.3%	27.8%	27.5%	37.0%	27.3%	33.8%	11.8%	34.8%	14.3%	35.0%	23.5%	-	28.6%	17.1%	35.0%	34.4%	38.5%
															n		N
Hardware store (e.g. True Value)	19	3	5	5	6	17	1	1	0	15	3	1	1	5	6	2	5
	9.5%	8.3%	12.5%	6.2%	13.6%	11.0%	5.9%	4.3%	-	9.6%	8.8%	10.0%	2.4%	14.3%	15.0%	6.3%	9.6%
														m	M		
Farm supply store	19	8	4	4	3	12	6	1	0	14	4	1	7	3	1	1	7
	9.5%	22.2%	10.0%	4.9%	6.8%	7.8%	35.3%	4.3%	-	8.9%	11.8%	10.0%	16.7%	8.6%	2.5%	3.1%	13.5%
		De											Op				o
Mail order/catalog	1	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0
	0.5%	-	2.5%	-	-	-	5.9%	-	-	0.6%	-	-	2.4%	-	-	-	-
Warehouse/wholesale club	6	0	1	3	2	6	0	0	0	4	2	0	1	1	3	0	1
	3.0%	-	2.5%	3.7%	4.5%	3.9%	-	-	-	2.5%	5.9%	-	2.4%	2.9%	7.5%	-	1.9%
Other	4	1	0	2	1	3	0	1	0	4	0	0	0	0	1	2	1
	2.0%	2.8%	-	2.5%	2.3%	1.9%	-	4.3%	-	2.5%	-	-	-	-	2.5%	6.3%	1.9%
Sigma	201	36	40	81	44	154	17	23	7	157	34	10	42	35	40	32	52
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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Table 6C-5: Fungicides - What Problem Were You Trying To Eliminate? Base: Bought Within Last Year

		Geographical region				Dwelling				Population density			Family income				
	Total	Northeast	Midwest	South	West	One Family House	Two Family House	Three + Family House	Mobile Home/ Trailer	Urban SMSA	Suburban SMSA	Rural	Under $25k	$25k - <$50k	$50k - <$75k	$75k - <$100k	$100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed respondents	217	38*	46*	85*	48*	166	17**	26**	8**	168	37*	12**	46*	41*	41*	35*	54*
Don't know	19	2	5	8	4	14	1	3	1	17	1	1	3	4	5	4	3
	8.8%	5.3%	10.9%	9.4%	8.3%	8.4%	5.9%	11.5%	12.5%	10.1%	2.7%	8.3%	6.5%	9.8%	12.2%	11.4%	5.6%
Total answering	198	36*	41*	77*	44*	152	16**	23**	7**	151	36*	11**	43*	37*	36*	31*	51*
Blight	39	8	9	16	6	27	7	4	1	29	10	0	9	8	6	4	12
	19.7%	22.2%	22.0%	20.8%	13.6%	17.8%	43.8%	17.4%	14.3%	19.2%	27.8%	-	20.9%	21.6%	16.7%	12.9%	23.5%
Leaf fungus	76	16	8	34	18	57	7	9	3	60	13	3	15	16	15	9	21
	38.4%	44.4%	19.5%	44.2%	40.9%	37.5%	43.8%	39.1%	42.9%	39.7%	36.1%	27.3%	34.9%	43.2%	41.7%	29.0%	41.2%
		C		C	C												
Mildew	64	12	15	20	17	46	7	9	2	48	13	3	17	11	9	8	19
	32.3%	33.3%	36.6%	26.0%	38.6%	30.3%	43.8%	39.1%	28.6%	31.8%	36.1%	27.3%	39.5%	29.7%	25.0%	25.8%	37.3%
Molds	67	8	12	26	21	52	7	5	3	48	15	4	18	12	15	4	18
	33.8%	22.2%	29.3%	33.8%	47.7%	34.2%	43.8%	21.7%	42.9%	31.8%	41.7%	36.4%	41.9%	32.4%	41.7%	12.9%	35.3%
					Bc								P	p	P		P
Moss	31	8	6	9	8	25	3	3	0	22	6	3	7	2	7	4	11
	15.7%	22.2%	14.6%	11.7%	18.2%	16.4%	18.8%	13.0%	-	14.6%	16.7%	27.3%	16.3%	5.4%	19.4%	12.9%	21.6%
															n		N
Rust	27	7	4	9	7	14	8	3	2	18	9	0	6	6	5	2	8
	13.6%	19.4%	9.8%	11.7%	15.9%	9.2%	50.0%	13.0%	28.6%	11.9%	25.0%	-	14.0%	16.2%	13.9%	6.5%	15.7%
											J						
Scale	21	7	3	8	3	13	4	2	2	18	3	0	3	6	5	1	6
	10.6%	19.4%	7.3%	10.4%	6.8%	8.6%	25.0%	8.7%	28.6%	11.9%	8.3%	-	7.0%	16.2%	13.9%	3.2%	11.8%
		e												p			
Toadstools	15	2	3	5	5	13	2	0	0	14	1	0	3	3	4	2	3
	7.6%	5.6%	7.3%	6.5%	11.4%	8.6%	12.5%	-	-	9.3%	2.8%	-	7.0%	8.1%	11.1%	6.5%	5.9%
Used as a preventative	39	7	9	17	6	32	3	2	2	29	5	5	11	10	6	5	7
	19.7%	19.4%	22.0%	22.1%	13.6%	21.1%	18.8%	8.7%	28.6%	19.2%	13.9%	45.5%	25.6%	27.0%	16.7%	16.1%	13.7%
Other	5	2	0	2	1	4	0	1	0	5	0	0	1	0	1	2	1
	2.5%	5.6%	-	2.6%	2.3%	2.6%	-	4.3%	-	3.3%	-	-	2.3%	-	2.8%	6.5%	2.0%
Sigma	384	77	69	146	92	283	48	38	15	291	75	18	90	74	73	41	106
	193.9%	213.9%	168.3%	189.6%	209.1%	186.2%	300.0%	165.2%	214.3%	192.7%	208.3%	163.6%	209.3%	200.0%	202.8%	132.3%	207.8%

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7. CONSUMER USE OF AND PERCEPTION TOWARD GREEN INSECT CONTROL PRODUCTS

Green insect control products provide consumers with an alternative method for treating their lawns and gardens with more naturally derived products as opposed to those with high chemical content. For the purposes of this study, we are defining "green" as the type of insecticides that are based on organic (plant based) materials or materials of natural origin. Materials of natural origin may be either organic, such as plant oils, or inorganic, such as boric acid. The material of natural origin must also be of low risk to the environment or the consumer. These products are particularly suited for consumers that are concerned over the effects that the process of applying chemicals may have on their health.

Some plant oils used include Rosemary, Wintergreen, Eugenol (Clove Oil) and other oils. They act as insecticides at certain concentrations. These materials are often known as exempt or minimum risk pesticides or "25b products." The term 25b refers to the section 25b of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). Due to the nature of the active and inert ingredients in these insecticides, they are exempt from registration with the Environmental Protection Agency (EPA). Other green insect control products would be those known as biological pest controls. The primary example of a biological pest control in the consumer market would be the insect control products based on the bacteria Bacillus thuringiensis, which acts as a toxin to lepidopterous insects and mosquitoes.

The EPA has enacted strong measures to ensure that manufacturers phase out consumer products that are deemed harmful and a high risk to users. These measures have contributed and will continue to contribute to an increased demand for green products.

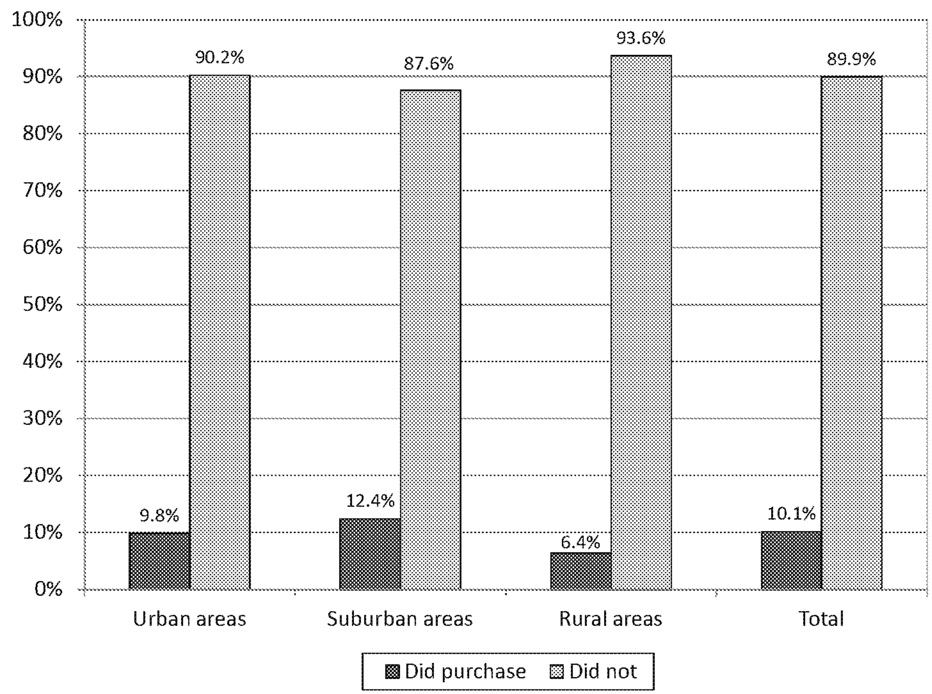
INCIDENCE OF PURCHASE OF GREEN INSECT CONTROL PRODUCTS - PAST 12 MONTHS

A study was conducted in 2011 to research current attitudes and practices of U.S. consumers regarding green insect control products. A total of 1,552 consumers were interviewed about their opinion on the products. Analysis was divided into several subsections: by geographical region, dwelling size, population density, family income, gender, age, number of household members and children in the household.

All of the 1,552 consumers were asked if they had purchased green insect control products in the past 12 months. The study showed that the majority of consumers, or 89.9%, had not. This majority is also reflected in each region, with 91.6% of consumers in the Midwest, 90.7% of consumers in the South, 88.8% of consumers from the Northeast, and 88.0% of consumers from the West not purchasing any products. The majority of respondents from each of the dwelling categories did not buy green products, with 90.2% of those consumers living in one family house, and 83.8% of consumers in houses with two families, 88.8% of consumers in three plus houses, and 95.2% of consumers living in a mobile home/trailers responding in the negative.

With regard to population density, consumers living in suburban areas had the most interest in green products, with 12.4% of respondents having purchased them, as compared with 9.8% in urban areas, and 6.4% of consumers living in rural areas.

Figure 7-1: Consumers Purchases of Green Insecticides by Population Density, 2011



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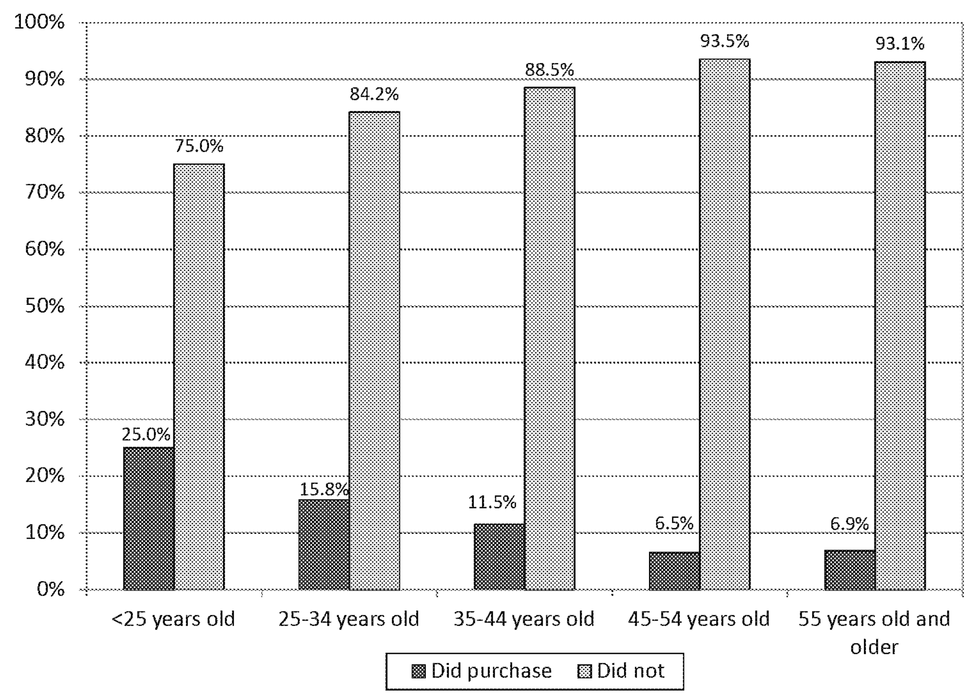
In terms of annual family income, slightly more consumers in higher income brackets purchased green insecticides. In the last year, 7.1% of consumers with incomes under $25,000, 11.2% of consumers that earned between $25,000 to $50,000, 9.3% of consumers that earned between $75,000 to $100,000 and 11.5% of consumers that earned $100,000 or over purchased green insect control products. Slightly more male respondents, or 11.2%, purchased products in the past year, as compared to 8.8% of females.

The greatest difference between purchasers and non-purchasers is seen when respondents are analyzed in terms of age. Younger respondents were the greatest purchasers of green insecticides: 25% of respondents younger than 25, 15.8% of respondents between 25-34 years old, 11.5% of respondents between 35-44 years old, 6.5% of respondents between 45-54 years old, and 6.9% of respondents 55 years old and older bought green insect control products in 2011.

Figure 7-2: Consumers Purchases of Green Insecticides by Age, 2011

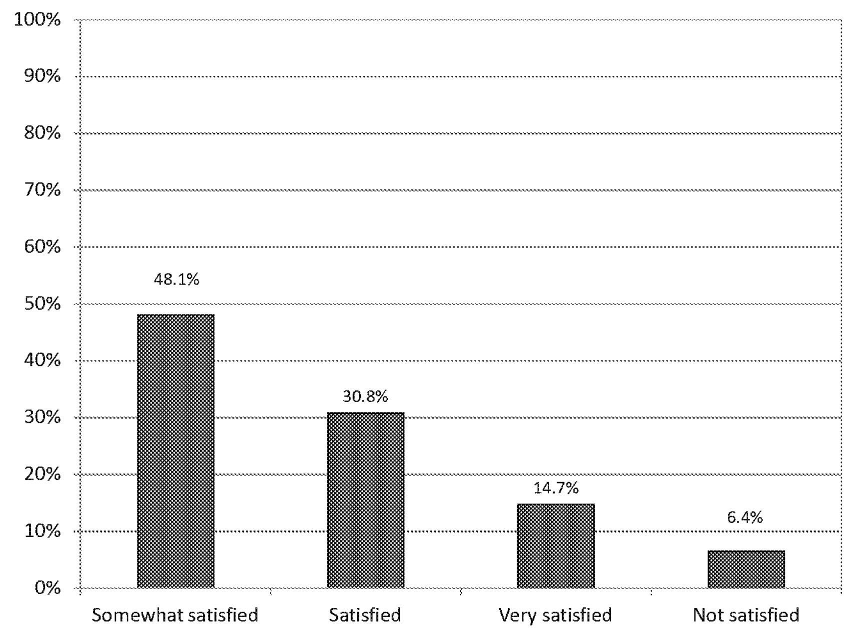


Most respondents that lived in one member households, or 89.3%, had not bought these products in the last year. Similarly, 92% of two member households and 88.6% of three plus member households had not purchased these products in the past year. With regard to the presence of children in the household, 11.6% of respondents with children and 9.6% of those without children purchased green insect control products in the last year.

SATISFACTION LEVELS

Of the 10.1% consumers that did buy green insect control products in 2011, the majority were satisfied to some level with the products. Only 6.4% of the consumers felt that they were not satisfied at all with the products. However, most of the respondents, or 48.1%, were only "somewhat satisfied," while 30.8% were "satisfied" and 14.7% were "very satisfied" with the green products. Regionally, there was little difference in satisfaction levels, only a slight increase in dissatisfaction responses in the Midwest.

Figure 7-3: Satisfaction Levels of Consumers Who Purchased Green Insecticides, 2011



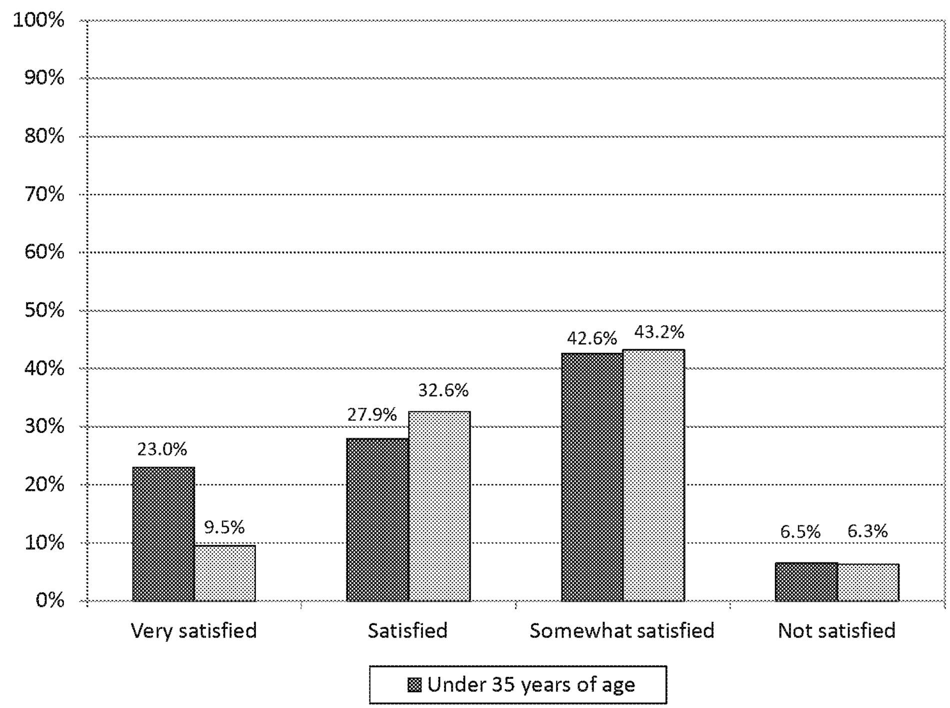
The majority of respondents, or 73.7%, lived in one-family houses. Of those who lived in one-family houses, 46.1% were "very satisfied" or "satisfied," and 53.9% leaned toward more negative satisfaction responses. Respondents living in two-family sized houses were mostly "somewhat satisfied" (69.2%) with the products and none felt that they were "not satisfied." Equal number of respondents from 3-plus family houses were either "somewhat satisfied" or "satisfied," (41.7%), as well as either "very satisfied" or "not satisfied" with the products (10% for each). Only 4 consumers who bought the products were living in mobile homes/trailers, not a statistically significant sample.

In terms of population density, the majority of consumers, or 71.2%, that purchased green insect control products in 2011 were living in urban areas. Out of these respondents, 43.2% were "somewhat satisfied" and only 7.2% were "not satisfied" at all. Similarly, the majority of suburban respondents, or 60.5%, were "somewhat satisfied" and few, or 5.3%, were dissatisfied. Only seven consumers lived in rural areas, not a statistically significant sample.

A similar pattern of results were attained for respondents based on their family income earned. The majority from each income level were "somewhat satisfied", with just a minor percentile from each (and none in the $50,000 to $75,000 range) not being satisfied. Half of the male respondents were "somewhat satisfied" while 27.8% were "satisfied," 18.9% were "very satisfied" and only 3.3% were "not satisfied" with the green products. Female respondents were mostly "somewhat satisfied" (45.5%), 34.8% were "satisfied," and 9.1% were "very satisfied" with the products while 10.6% were "not satisfied" at all.

The two age groups that bought the most green insect control products, those younger than 25 years old, and those between 25 and 34 years old, showed the most positive satisfaction levels with the products. Of these respondents, 23.0% were "very satisfied" and 27.9% were "satisfied." The remaining 42.6% were "somewhat satisfied," and 6.5% were "not satisfied" at all. This contrasts somewhat to the respondents who were older than age 35, whereas only 9.5% were "very satisfied" and 32.6% were "satisfied."

Figure 7-4: Satisfaction Levels of Consumers Who Purchased Green Insecticides by Age, 2011



PLANS TO PURCHASE GREEN PRODUCTS IN THE FUTURE

When all of the sample (1,552 consumers) were asked if they had planned to purchase any green insect control products in the next 12 months, the majority, or 78.7%, indicated that they would not purchase these products, but 21.3% did plan to try them out. Geographically, there was little difference among the regions with regard to what proportion of consumers planned to buy green products: in the South, 22.8% planned to buy green products in the next twelve months; in the Northeast, 21.1%; in the Midwest, 19.1%; and in the West, 22.8%.

In terms of dwelling size, respondents that lived in a two-family house are most likely planning to buy green products in the next 12 months (28.8%). Respondents that lived in a one family house are slightly less likely to buy green products in the next year (21.4%), while only 17.7% of consumers living three-plus households, and 14.3% of consumers from mobile homes/trailers are planning to purchase these goods in the next 12 months. Based on population density, there was little difference: 21.7% of respondents living in urban areas; 19.9% of respondents from suburban areas; and 21.1% of respondents that live in rural areas planned on buying green insect control products in the next 12 months.

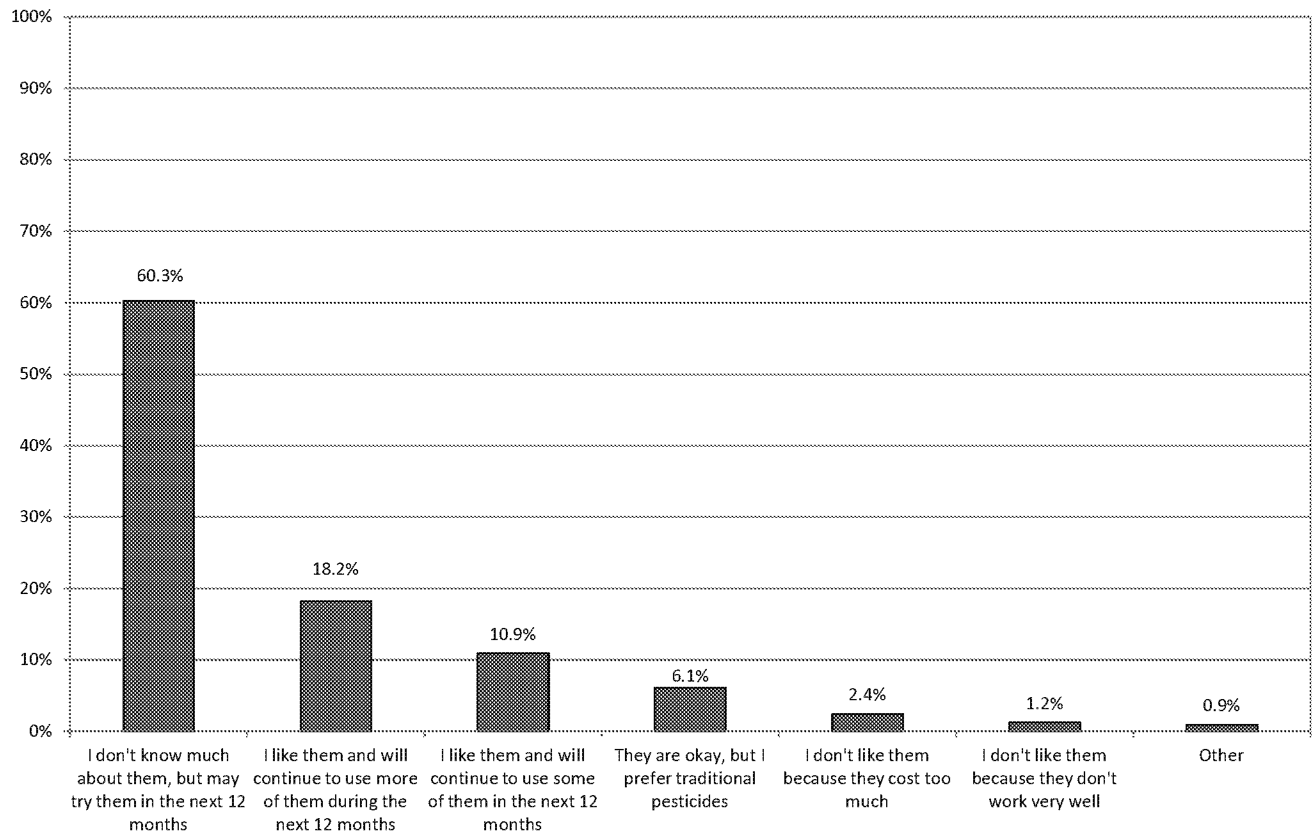
In terms of income level, there was little difference in plans to purchase green products: of respondents with family incomes of under $25,000, 22.8% plan to buy green products in the next year; of respondents with family incomes between $25,000 and $50,000, 22.3%; of respondents with income of $50,000-$75,000, 21.3%; of respondents earning family incomes of between $75,000 to $100,000, 18.2%; and of respondents with family incomes of $100,000 plus, 20.2%.

In terms of ages, as in other questions noted above, there are more positive attitudes toward green products exhibited by the younger demographic consumer: of those under 25 years old, 33.8% plan to buy green products in the next year; of those 55 years and older, only 18.7% plan to buy the products. In terms of household sizes, there is little difference between three plus member households, one member households, and two member households, with 22.7%, 21.2% and 19.8%, respectively. Respondents with children (21.1%) were similar to those who didn't have children (21.3%).

CONSUMERS WHO PLAN TO BUY GREEN INSECTICIDES IN THE NEXT 12 MONTHS - OPINIONS ABOUT GREEN PRODUCTS

The 21.3% of respondents that are planning to buy green insect control products in the next 12 months were asked several questions about their feelings on the products. Firstly, they were asked to give a general opinion of these products. The majority, or 60.3%, felt that they did not know much about the products but where willing to try them out during the next year. Some respondents (18.2% of all respondents, or 38.5% of those who had already used green products) felt that they liked the products so much that they would consider using more over the next year, whilst others (10.9% of all respondents, or 12.8% of those who had already used green products) liked the products but will continue to use only some of the products in the next 12 months. Of respondents that are planning to buy green insect products in the next 12 months, 6.1% of the respondents felt that the products were okay, but preferred traditional pesticides, 2.4% of the respondents did not like the products much because they perceive them as costing too much, and 1.2% do not like the products because they perceive them as not working very well (0.9% of respondents cited "other" opinions).

Figure 7-5: General Opinions of Consumers Who Plan to Purchase Green Insecticides, 2011



Regionally, there was little distinction between the regions with more than 55% of the respondents from each indicating that "they didn't know much about green products but were willing to try them." In addition, the majority of respondents irrespective of dwelling size had fairly positive opinions of green insect control products. With regard to the perception of high cost, only 2.3% of respondents from one family houses and 5.3% of respondents from three plus family houses didn't like the products because the cost was too much (with no respondents in this category from two family houses or mobile homes/trailers).

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Similarly, the majority of respondents in all types of population densities, urban, suburban, and rural, indicated that they did not know much about the products, but would consider trying them in the next 12 months. Likewise, the majority of respondents, irrespective of their income group, indicated positive opinions of the green products and despite not knowing a lot about these products, would consider trying the products in the next year. Somewhat more females (65.8%) felt that they did not know much about the products, but would consider trying them in the next year as compared to males (55.4%).

With regard to continuous use, more males (21.1% of all respondents, or 23.7% of those who had already used green products) felt that they liked the products and would continue to use them in the next 12 months compared to females (14.8% of all respondents, or 14.7% of those who had already used green products). Some respondents (8% males, 3.9% females) felt the products were fine, but preferred the traditional pesticides, whilst others did not like the products because they were either costing too much (2.3% males, 2.6% females) or they did not work well (1.7% males, 0.6% female).

In terms of age, the majority of the respondents from the different age groups did not know too much about the green products, but were willing to try in the next 12 months: 40.7% from those less than 25 years old; 52.9% from those 25-34 years old; 48.3% of those between 35-44 years old; 69.7% of those between 45-54 years old; and 70.3% of those 55 years and older. Similarly, most of the respondents from each of the household size, felt that they did not know much about the products, but may try them in the next few months. More respondents without children, or 62.3%, than those with children, or 53.4%, claimed not to know a lot about green products, but would be willing to try them in the next year.

CONSUMERS WHO PLAN TO BUY GREEN INSECTICIDES IN THE NEXT 12 MONTHS - WILLINGNESS TO PAY A PREMIUM

The second question posed to consumers who are planning to buy green insect control products in the next 12 months was if they are willing to pay more for green products if they know they would work just as well as traditional pesticides. The majority, or 70.9%, said yes.

Geographically, the South and the West had a slightly greater proportion of respondents who would pay premiums, with 75.2% and 71.8%, respectively. Fewer are willing to pay more in the 67.2% Northeast (67.2%), and Midwest (65.7%). In terms of dwelling size, respondents from one family houses, and two family houses indicated that they will pay more for green products; with 72.8% and 73.9%, respectively. Slightly fewer respondents from three plus family house and living in mobile homes/trailers were willing to pay the premiums involved, or 60.5% and 58.3%, respectively.

When looking at the responses based on the population density, the greatest proportion, or 78.7%, of respondents that will pay more for green products come from suburban areas (versus 69.1% for urban residents and 69.6% for rural residents). In terms of family income, the higher the income level for the respondent, the more likely they are willing to pay extra for green products. The highest percentile of respondents that are willing to pay more is from those with incomes of $75,000-$100,000, with 77.8% saying they will pay a premium.

More females (72.9%) will pay more for green insect control products if they would work as well as traditional pesticides than males (69.1%). With regard to age, more than 70% of respondents from each age group will pay extra for green products (except for those aged 45-54 years old, where 63.6% of respondents would pay). Respondents with children are more willing to pay more (80.8%) than those without children (68.1%).

Amount of premium

The next question posed to those respondents who indicated they are willing to pay more (70.9% of all of those planning to buy green insect control products in the next 12 months) was "About how much more would you be willing to pay for the green insect control products?" The respondents were offered the choice of a 10% premium, a 25% premium, a 50% premium, and a 100% premium. The majority of the respondents, or 65%, opted for a 10% premium. As expected, the higher the premium, the less interest: 25.6% indicated that they would pay 25% more, 6.8% indicated that they would pay 50% more, and 2.6% indicated that they would pay 100% more. Most of the respondents that would pay 10% more were from the South (69.1%). Most of the respondents that lived in a two family houses (47.1%) would pay 25% more for these products, whilst most of the respondents from three plus dwellings would pay only 10% more for the products. Of the respondents living in mobile homes, 85.7% would also pay just 10% more for these products.

A similar pattern of results was obtained for population density with the majority of the respondents willing to pay 10% for these products, and just a few willing to pay 100% more. Likewise, the results based on income level show that the majority of respondents would pay 10% more for these products, and very few would pay 100% more for these green insect control goods, regardless of which income bracket they fell into. More females than males would pay 10% more for the products (67.3%, as compared to 62.8%), whilst a greater proportion of males than females would pay 25% and 50% more. The majority of the respondents in all age groups preferred to pay a 10% premium. None of the respondents with children would pay 100% more for the goods but 3.4% of those without children would pay that premium. About the same amount of respondents with children (64.4%) would pay 10% more for the products as those without children (65.1%).

Amount of premium versus level of effectiveness

Going back again to the group of 21.3% of all respondents that are planning to buy green insect control products in the next 12 months, they were asked if they would be willing to pay more for green products if they worked only 75%, as well as traditional pesticides. Slightly more than half of the respondents, or 54.2%, indicated that they would not pay more. Regionally, slightly more of the respondents from the Midwest (57.1%) and South (56.8%) indicated that they would not pay the higher price, with slightly fewer in the West (53.5%) and the Northeast (54.7%) saying that they would not.

Respondents from one family houses, three plus family houses and from mobile house/trailers were most likely not to pay the premiums, with 54.9%, 60.5%, and 75.0% of the groups responding negatively, respectively. Only in the group of respondents from a two family house dwellings were the majority (73.9%) willing to pay extra for the products. In terms of population density, similar results were attained, with more than half the respondents not willing to pay premiums for these products, with the greatest majority, or 60.9%, for those living in rural areas. In terms of income brackets, more than half of the respondents would not pay more for green products, irrespective of which income bracket they fell under. More than half of the respondents, both male (53.7%) and female (54.8%) wouldn't pay extra for the products.

The two age groups that bought the most green insect control products, those younger than 25 years old, and those between 25 and 34 years old, showed the most positive inclination to pay a premium for the products even if they only worked at 75% effectiveness. Of the respondents under the age of 34, 53.7% indicated that they would be willing to pay a premium, while 42.5% of those over 35 years of age were positive. More respondents with children would pay more for the products (52.1%) than respondents without children (56.0%).

OTHER REASONS FOR USING GREEN INSECT CONTROL PRODUCTS

The group of 21.3% of all respondents that plan to buy green insect control products in the next 12 months were asked if they would be more likely to use a green insect control product if it is for a specific use. The majority, or 84.2%, indicated that they be more likely to use a green product in that case. Regionally, there was little difference, with somewhat more respondents in the Northeast and West more likely to use green products for a specific purpose.

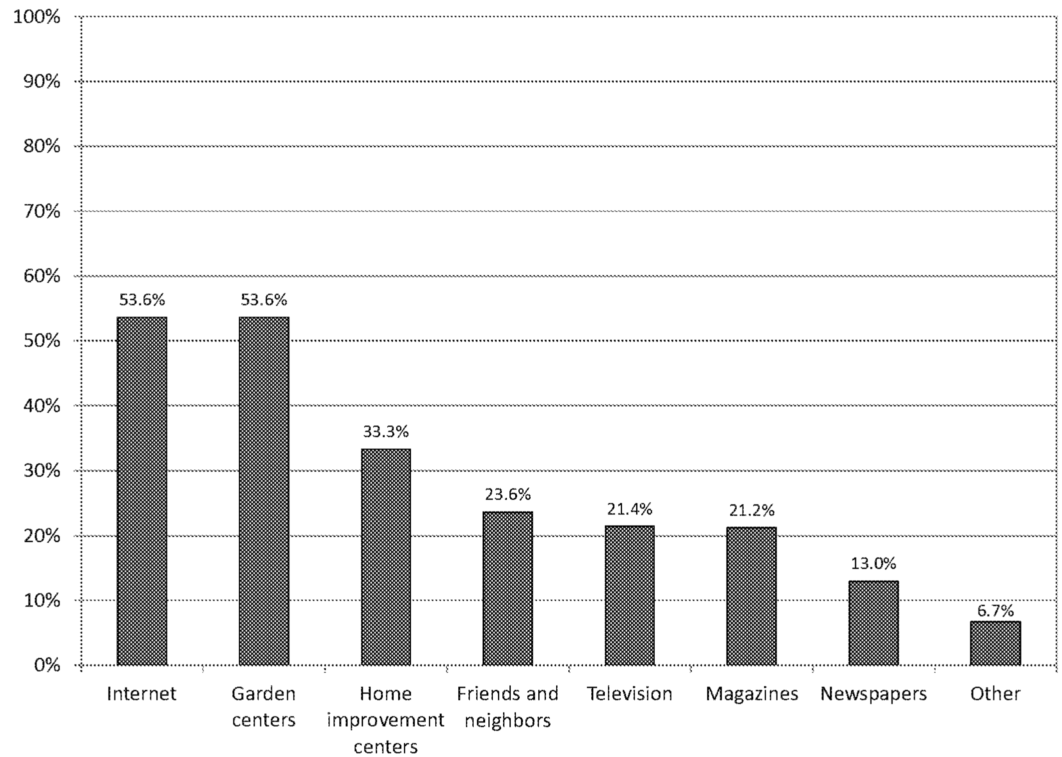
Similarly, most respondents irrespective of the dwellings they lived in indicated that they would more likely use a green insect control product if it is for a specific use. The highest percentile of respondents that would not, or 25.0%, were from the group that live in mobile houses/trailers. Likewise, most respondents irrespective of which population density (urban, suburban, or rural) they lived in indicated that they would more likely use a green insect control product if it is for a specific use. The highest percentile of respondents that would not, or 17.9%, are from urban areas. In terms of income brackets, most of the respondents from each income level felt that they were more likely to use these products for a specific use. The highest percentile of respondents that answered positively, or 24.5%, are from the group that earned over $100,000. Almost as many females (83.9%) indicated that they would more likely use a green insect control product if it is for a specific use as males (84.6%).

With regard to age, the majority of the respondents from each of the age groups are also more likely use a green insect control product if it is for a specific use, the highest percentile being approximately 90% from the two groups of those aged older than 45. There was little difference in responses in the various household sizes. Slightly more respondents with children (87.7%) than those without children (83.3%) would more likely use a green insect control product if it is for a specific use.

SOURCES OF INFORMATION ABOUT GREEN INSECT CONTROL PRODUCTS

The group of 21.3% of all respondents that plan to buy green insect control products in the next 12 months were asked about what sources they used to obtain information about green insect control products. The most popular source was online information (53.6%), followed by garden centers (45.5%). Home Improvement centers were next with 33.3%. A number of other sources are cited.

Figure 7-6: Where Consumers Get Information About Green Insect Control Products, 2011



NOTE: Includes multiple responses.

On a regional basis, the majority of respondents from the Northeast, Midwest and South got their information from on-line sources. On the other hand, the majority of respondents from the West (54.9%) received their information from garden centers.

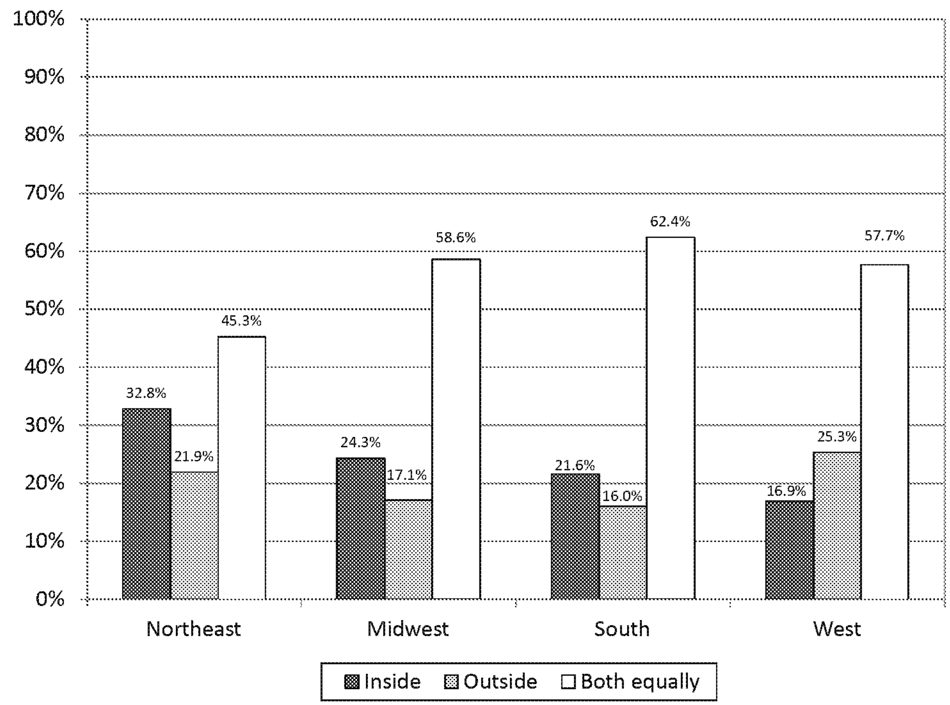
Similarly, most of the respondents, irrespective of which area they lived in (urban, suburban or rural) got their information from the internet (50.8%, 67.2%, and 47.8%, respectively). With regard to income bracket, respondents that earned family incomes under $25,000 mostly got their information from garden centers (58.1%) followed by online information (52.3%) and home improvement centers (30.2%). Analysis by gender found similar sources for both males and females: online sources are 52.0% for males and 55.5% for females, garden centers are 38.3% for males and 53.5% for females, home improvement centers are 34.3% for males and 32.3% for females. Similar pattern of results were found for respondents from each age group. Slightly more respondents with children (57.5%) used online sources for information than those without children (52.5%).

GREEN INSECT CONTROL PRODUCTS INSIDE OR OUTSIDE OF THE HOME

The group of 21.3% of all respondents that plan to buy green insect control products in the next 12 months were asked if they would be more likely to use green insect control products inside or outside of their home. The majority, or 57.3%, indicated that they will use green insect control products equally inside and outside. Of the remaining, 23.3% indicated they would use the products inside their home and the 19.4% indicated they would use them outside their home.

Regionally, in the Northeast, most respondents, or 45.3%, would use the products equally inside and outside, whilst 32.8% would use green products more inside and 21.9% would use green products more outside. In the other three regions, a somewhat greater number would divide the use of these products equally. Less people in the Midwest (17.1%) and the South (16%) would use the products outside whilst in the West fewer respondents (16.9%) would use them indoors.

Figure 7-7: Where Consumers Would Use Green Insect Control Products, 2011



The majority of responders that live in a one family house (58.8%) use these products equally, while 21.4% of them use it inside and 19.8% use it outside. Most of the responders from two family houses (47.8%) would use these products inside whilst 43.5% would use them equally between outside and inside. Only a few (8.7%) would be using the products outside. Most of the respondents from three+ houses (57.9%) and half of the responders from mobile house/trailers also would use equally inside and outside.

In terms of population density, more than half the respondents said that they would use green products equally inside and outside irrespective of which area they lived in. With regard to income level, respondents in an income bracket under $25,000 mostly felt that they would use green products equally inside and outside (54.7%), while 29.1% would use them inside and 16.3% would use them outside. The majority of respondents who earned family incomes of $25,000 to $50,000, would use green products equally inside and outside (60.9%), while 20.7% would use them more outdoors and the 18.5% would use them indoors. Slightly more than half of the respondents that earned $50,000 to $75,000 would use green products equally inside and outside, and equal percentages of the rest, or 21.4% each, would use green products inside or outside.

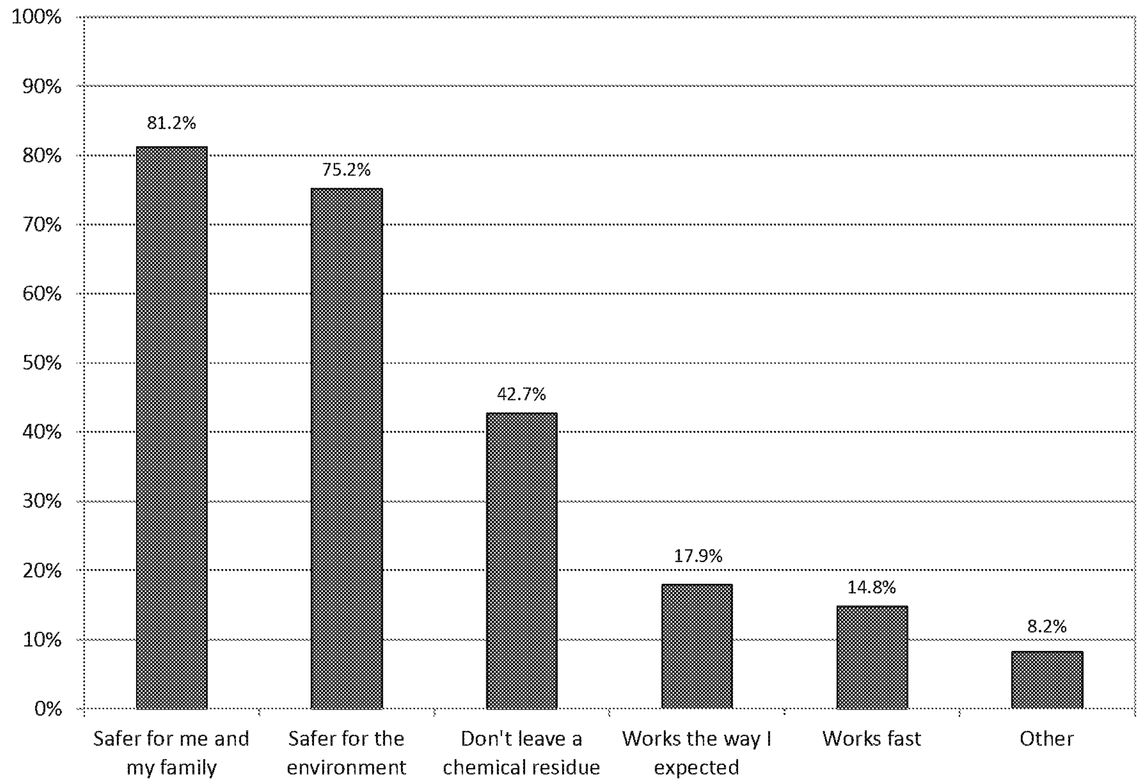
Analysis by gender found that a similar proportion of male respondents (56%) as female respondents (58.7%) would use green products equally inside and outside, while more females (26.5%) would use them just inside and more males (23.4%) would use them just outside. With regard to age, there is little difference between the age groups in that the majority of each would use the products equally indoors and out. More respondents aged 25 years and younger would use the products outside (37.0%), whereas more of the respondents from each of the other age groups would use the products inside.

A greater percentage of consumers with children would use green products equally inside and outside (64.4%) than those without children (55.3%). Alternatively, more respondents without children would use the products outside (21.4%) than those with children (12.3%). Both groups are equally likely to use them indoors (23.3% each).

REASONS FOR LIKING THE USE OF GREEN INSECT CONTROL PRODUCTS

The group of 21.3% of all respondents that plan to buy green insect control products in the next 12 months were asked what were the reasons they liked (or would like in the future) using green insect control products. The number one reason was that the products are "safer for me and my family," cited by 81.2% of the respondents. The second most cited reason, with 75.2%, is that green products are "safer for the environment." Additional popular reasons are green products "do not leave a chemical residue" with 42.7%, and that they "are derived from an organic source" with 34.8%.

Figure 7-8: Reasons for Liking Green Insect Control Products, 2011



NOTE: Includes multiple responses.

Respondents from each of the different geographical regions consistently indicate that the number one and number two aspect that they like about green insect control products is the safety for them and their families, as well as safety for the environment. There was little difference between dwelling sizes, population density, or income level.

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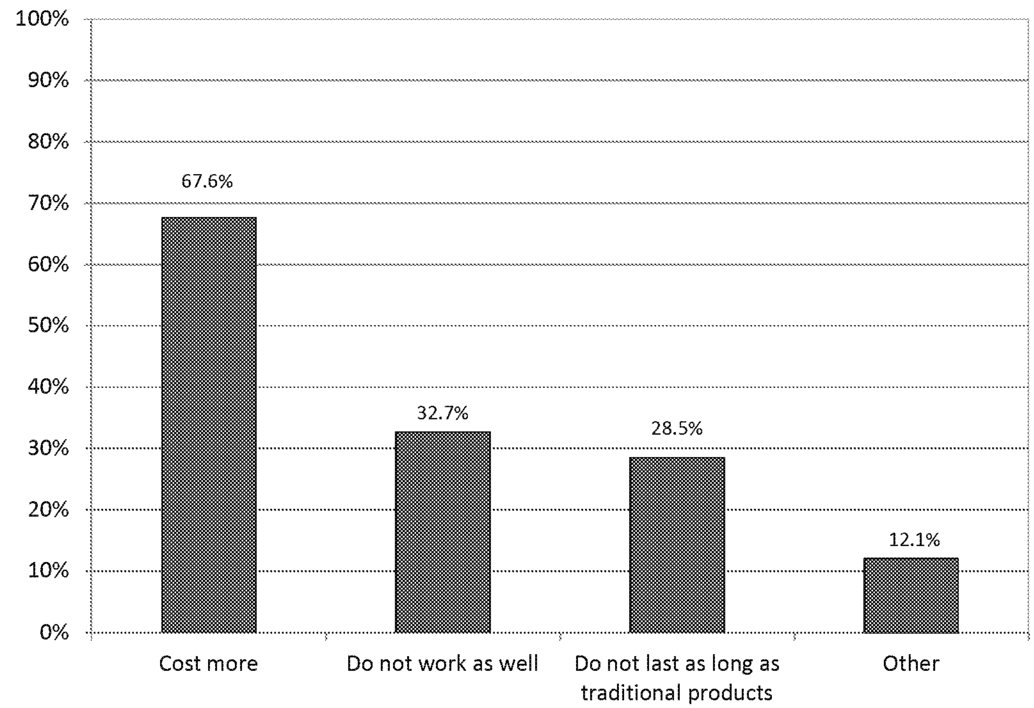
Analysis by gender found that slightly more females, or 85.8%, gave the reason "safer for me and my family" than males with 77.1%. This was also true with "safer for the environment," cited by 76.8% of females versus 73.7% of males. Similar results were for each of the age categories with more than 69% of each group finding safety the number one reason that they liked green products. "No chemical residues" and "derived from organic sources" are also popular reasons. The same results were found for households with and without children.

REASONS FOR NOT DISLIKING THE USE OF GREEN INSECT CONTROL PRODUCTS

The group of 21.3% of all respondents that plan to buy green insect control products in the next 12 months were asked what were the reasons they disliked (or might dislike in the future) using green insect control products. The number one reason was that the products are "cost more," cited by 67.6% of the respondents. The second most cited reason, with 32.7%, is that green products "do not work as well." Approximately 28% indicated that green insect control products "do not last as long as traditional products," and the remaining 12.1% had other reasons.

Figure 7-9: Reasons for Disliking Green Insect Control Products, 2011



NOTE: Includes multiple responses.

Regionally, there was little difference in the percentiles of respondents who cited the above reasons for disliking the use of green insect control products, except that a high proportion of the Midwest, or 81.4%, felt that the products cost too much. Irrespective of what their dwelling size was, the majority of respondents felt that they didn't like green products because of their costs. In terms of population density, most respondents from all three types of areas (urban, suburban, and rural) cited cost as the number one reason, with a somewhat greater proportion of rural respondents (73.9%) citing this negative.

In terms of income levels, the higher the income bracket, the greater proportion of respondents who didn't like that green insect control products "don't work as well as traditional pesticides." Analysis by gender found that more female respondents (71.6%) don't like that they cost more than male respondents (64%). More male respondents also indicated that green products don't work as well (36.6%) and didn't last as long (33.7%) as compared to females (28.4% and 22.6%, respectively).

In terms of age, the youngest respondents, had the lowest percentile, or 25.9%, who felt that green insect control products "don't work as well as traditional pesticides." The older age ranges also indicated more negative concern with cost.

About the same amount of respondents with children (67.1%) as those without children (67.7%) don't like the cost of the products or felt that green products didn't work as well (34.2% versus 32.3%).

CHARACTERISTICS OF GREEN INSECT CONTROL PRODUCTS

The group of 21.3% of all respondents that plan to buy green insect control products in the next 12 months were asked a series of questions whereas they were asked to rate the importance of various characteristics of green insect control products. They were given a scale of one to seven, whereas seven represents very important, four a neutral opinion and one not an important characteristic.

Table 7-1: Ratings of Characteristics of Green Insect Control Products, 2011

	Percentage of respondents rating-a		
Characteristic	**Very important**	**Neutral**	**Not important**
Safe for me and my family	71.5	5.5	0.9
Safe for the environment	57.0	8.2	1.5
Proven effective through independent testing	44.2	11.5	1.8
Made from natural ingredients	41.2	13.6	0.6
EPA registered	40.9	17.6	3.9
Degrades quickly in sunlight leaving no residue	28.5	22.1	5.2
Is from a recognizable company or brand	25.8	23.6	5.2
Made with essential oils	22.4	30.0	3.6
Made with a botanical pyrethrum	20.0	34.5	3.0

a- Base is group of respondents that plan to buy green insect control products in the next 12 months.

The characteristic rated as very important by the most respondents was "Safe for me and my family," with 71.5% of the group indicating it as such. This rating varied little among the respondents irrespective of region they were in, with a slightly larger proportion of the Northeast region (76.6) indicating it was very important. In terms of population density, urban consumers indicated less "very important" ratings (68.7%) than suburban (80.3%) and rural consumers (78.3%). More than 60% of the respondents from each of the income groups also gave a high rating of 7. Analysis by gender found that more females (79.4%) than males (64.6%) rated it as "very important." More than 55% of respondents from each of the different age groups and more than 70% of respondent from the different household sizes gave a high rate of 7. Family safety was also a very important issue for households with or without children (72.6% and 71.2%, respectively).

The next characteristic rated as "very important" by respondents was "Safe for the environment," with 57.0% of the group indicating it as such. Respondents from each of the various regions felt that this was very important, and more than half from each region gave a 7 rating. Similarly, the majority of respondents from each of the population density and family income categories also gave 7 rating. Environmental safety was very important for both genders but more females (61.9%) than males (52.6%) gave it a 7 rating. With respect to age, the older the respondent group, the more likely they were to rate this characteristic as "very important." Slightly more respondents without children (57.6%) than with children (54.8%) gave a 7 rating.

The next characteristic rated as "very important" by the third most respondents was that the green product be "Proven effective through independent testing," with 44.2% of the group indicating it as such. It is a very important issue for each of the regions with 40-50% of each regions respondent giving a 7 rating, and the majority of the remainder rating it as a 5 or 6 in importance. A similar pattern of results were found from each of the population density groups, as well as each income level. More females (51.0%) indicated that this characteristic is "very important," giving a 7 rating than males (38.3%). With regard to age, more respondents aged 45-54 years old (54.5%) and 55 years old and above (54.1%) gave a 7 rating. Between 43%-45% of the respondents in each of the household sizes indicated that this characteristic is "very important," with 6 being the most popular choice thereafter. Just as many responders with children gave a 7 rating (43.8%) as those without children (44.4%).

The next characteristic rated as "very important" by the fourth most respondents was that the green product be "Made from natural ingredients," with 41.2% of the group indicating it as such. This was an important quality for the respondents from each of the different geographical regions as most gave high ratings of 6 or 7. Respondents from one family houses (41.2%), three plus family houses (47.4%), and mobile homes/trailers (58.3%) gave a 7 rating, while 21.7% of responders from a two family houses gave either a 6 or 7 rating. With regard to population density, slightly less respondents (34.8%) from rural areas gave either this characteristic a 6 or 7 rating. With respect to income levels, there was little difference between the brackets as to the importance of the characteristic. More females (44.5%) indicated that this characteristic is "very important," giving a 7 rating than males (38.8%).The majority of respondents younger than 25 years old gave a 6 rating whilst the majority of each of the other age categories gave a 7 rating. Most respondents with children gave this quality 6 rating (34.2%) and most without children (43.6%) gave it a 7 rating.

The next characteristic rated as "very important" by the fifth most respondents was that the green product be" EPA registered," with 40.9% of the overall group indicating it as such. A further 19.4% and 13.3% of the respondents also gave good rating of 6 and 5, respectively, whilst 17.6% had a neutral opinion. Few respondents gave lower ratings with 3.3% giving a 3 rating, 1.5% giving a 2 rating and 3.9% indicating that it was "not important." Regionally, the Northeast had the most respondents (50%) that gave it a "very important" rating. Most of the respondents in one family houses and three plus family houses gave this characteristic a 7 rating while the majority of respondents from 2 family houses gave a 5 rating. Half of the respondents from mobile houses/trailers gave a 7 rating, and 33.3% gave a neutral rating. A similar proportion of respondents from each of the population density areas rated this characteristic as "very important" with suburban (47.5%) and rural (47.8%) residents higher than urban residents (38.6%). With regard to income level, the lowest bracket, those earning under $25,000, had the most rating it as "very important" with 50.0%. More females (44.5%) indicated that this characteristic is "very important," giving a 7 rating than males (37.7%). With regard to age, a majority of respondents from each of the different age groups gave a 7 rating, except for those younger than 25 years old wherein the majority (29.6%) gave a 6 rating.

The next characteristic rated as "very important" by the sixth most respondents was that the green product " Degrades quickly in sunlight leaving no residue," with 28.5% of the overall group indicating it as such. More respondents gave it a good rating with 28.1% rating it 6 and 14.1% rating it a 5. Only 14.1% had a neutral feeling about this characteristic, with the remaining 12.5% giving it lower ratings. Geographically, there was little difference on the ratings from region to region. With regard to type of home, and population density, there was little variation from the ratings of the group as a whole. The characteristic also proved to be more of an important quality for each of the different income levels, with few giving low ratings. There was slight difference between males (28%) and females (29%) with regard to the high rating of this characteristic. More respondents younger than 25 years old gave lower ratings as compared to other age groups, with 11.1% feeling it was "not important." More of the responders with children as compared those without gave lower ratings with 5.8% of them feeling it was not important.

The next characteristic rated as "very important" by the seventh most respondents was that the green product "Is from a recognizable company or brand," with 25.8% of the overall group indicating it as such. In addition, 20.3% of the respondents gave it a 6 rating and 17.9% gave a 5. Regionally, the majority of respondents from Northeast (25%) and West (23.9%) gave the recognizable brand characteristic neutral ratings, but in the Midwest (27.1%) and South (28.8%) the majority of respondents from gave a "very important" rating. The majority of respondents from one family houses (28.8%) gave it a "very important" rating, while the majority from each of the other types of dwellings gave it a neutral response. Suburban respondents mostly gave a 7 rating (31.1%) while rural respondents mostly gave a 6 rating (26.1%). The majority of respondents with family incomes under $25,000 (27.9%) and between $50,000 to $75,000 (29.3%) felt it was "very important" aspect of green products. Respondents with family income $25,000 to $50,000 mostly gave either a "neutral" or "very important" rating (both 23.9% of respondents.) Similarly, an equal number of respondents earning between $75,000 to $100,000 gave either a 5 or 7 rating. The majority of respondents earning $100,000 and above gave a neutral rating (22.4%).

The top rating for respondents younger than 25 years old was 6 (29.6%), for those aged 35-44 years old was 4 (25.9%), for those aged 45-54 years old was 7 (28.8%) and for those aged 55 years and older was 4 (27.9%). The majority of the respondents from each of the different household sizes felt that it was a "very important" issue.

The next characteristic rated as "very important" by the eighth most respondents was that the green product is "made with essential oils," with 22.4% of the overall group indicating it as such. More of the respondents (30.0%) had a neutral stance on this. Some felt that it was "important" giving it a rating of 5 (17.9%) and 6 (19.1%), respectively, whilst very few gave lower ratings of 3 (1.8%) and 2 (5.2%) and 1 (3.6%). Most of the respondents from each of the regions gave this feature a neutral rating; 32.8% from the Northeast, 27.1% from the Midwest, 28.8% from the South, and 32.4% from the West. Similarly, the majority from each type of dwelling size also gave a 4 rating with the highest percentile coming from those that live in mobile houses/trailers (50%). Most of the respondents living in urban areas (31.3%) and rural areas (34.8%) gave a neural rating whilst more of the respondents living in suburban areas (34.4%) gave a very important rating of 7.

With regard to income level, respondents earning less than $25,000 dollars, $25,000 to $50,000 and $75,000 to $100,000, mostly gave a neutral rating. The majority of respondents earning $50,000 to $75,000 (27.6%) gave a "very important" rating of 7 and the majority of those that earned $100,000 + (30.6%) gave a rating of 6. There was slight difference between males (30.3%) and females (29.7%) with regard to the neutral rating of this characteristic, the most popular rating for both genders. The majority of respondents aged younger than 25 years old (33.3%) and those 45-54 years old (27.3%) rated this quality as being "very important," while the majority of respondents from each of the other age groups gave this feature a neutral rating.

The next characteristic rated as "very important" by the ninth most respondents was that the green product is "made with a botanical pyrethrum," with 20.0% of the overall group indicating it as such. More of the respondents (34.5%) gave this characteristic a neutral rating. The majority of respondents from each of the geographical regions equally had neutral opinions. Likewise, most of the respondents gave neutral ratings from each of the different dwelling types, with the highest being 50% of respondents from mobile houses/trailers. Respondents from urban areas were mostly neutral (33.3%) and only 3.3% felt this characteristic is "not important." The majority of respondents from suburban areas were equally split between neutral rating and very important ratings (34.4% for each). Although most of the rural respondents were neutral (47.8%), none of them gave low ratings, showing that this characteristic is a fairly important requirement for them. The majority of the respondents from each of the different income groups gave neutral ratings, except for those that earned $50,000 to $75,000, where the majority gave a 6 rating, indicating that this is an "important" requirement for them. Both genders were mostly neutral, but a higher percentage of males gave lower ratings than females. A neutral rating was also the most common result from each of the different age groups, each of the different household sizes, as well as those groups with and without children.

Table 7-2: Did You Purchase Any Green Insect Control Products During the Past Year?

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Base: Total Respondents	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
	156	34	31	51	40	115	13	24	4	111	38	7	27	46	32	23	28
Yes	10.1%	11.2%	8.4%	9.3%	12.0%	9.8%	16.3%	11.2%	4.8%	9.8%	12.4%	6.4%	7.1%	11.2%	11.8%	9.3%	11.5%
							fI	i			l			m	M		m
	1,396	270	336	498	292	1,058	67	191	80	1025	269	102	351	366	240	224	215
No	89.9%	88.8%	91.6%	90.7%	88.0%	90.2%	83.8%	88.8%	95.2%	90.2%	87.6%	93.6%	92.9%	88.8%	88.2%	90.7%	88.5%
						g			Gh			k	nOq				
Sigma	1,552	304	367	549	332	1,173	80	215	84	1,136	307	109	378	412	272	247	243
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base

Kline

Table 7-3: How Satisfied Were You With Them? Base: Purchased Green Insect Control Products

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed Respondents	156	34*	31*	51*	40*	115	13**	24**	4**	111	38*	7**	27**	46*	32*	23**	28**
Very satisfied	23	5	5	9	4	17	3	2	1	15	7	1	3	5	4	1	10
	14.7%	14.7%	16.1%	17.6%	10.0%	14.8%	23.1%	8.3%	25.0%	13.5%	18.4%	14.3%	11.1%	10.9%	12.5%	4.3%	35.7%
Satisfied	48	11	7	15	15	36	1	10	1	40	6	2	11	13	12	6	6
	30.8%	32.4%	22.6%	29.4%	37.5%	31.3%	7.7%	41.7%	25.0%	36.0%	15.8%	28.6%	40.7%	28.3%	37.5%	26.1%	21.4%
										K							
Somewhat satisfied	75	17	19	20	19	54	9	10	2	48	23	4	12	25	16	11	11
	48.1%	50.0%	61.3%	39.2%	47.5%	47.0%	69.2%	41.7%	50.0%	43.2%	60.5%	57.1%	44.4%	54.3%	50.0%	47.8%	39.3%
			d								j						
Not satisfied at all	10	1	0	7	2	8	0	2	0	8	2	0	1	3	0	5	1
	6.4%	2.9%	-	13.7%	5.0%	7.0%	-	8.3%	-	7.2%	5.3%	-	3.7%	6.5%	-	21.7%	3.6%
				C													
Sigma	156	34	31	51	40	115	13	24	4	111	38	7	27	46	32	23	28
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base; ** very small base (under 30) ineligible for sig testing

Table 7-4: Do You Plan to Purchase Green Insect Control Products Within the Next 12 Months?

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Base: Total Respondents	1552	304	367	549	332	1173	80*	215	84*	1136	307	109	378	412	272	247	243
	330	64	70	125	71	257	23	38	12	246	61	23	86	92	58	45	49
Yes	21.3%	21.1%	19.1%	22.8%	21.4%	21.9%	28.8%	17.7%	14.3%	21.7%	19.9%	21.1%	22.8%	22.3%	21.3%	18.2%	20.2%
							HI										
	1222	240	297	424	261	916	57	177	72	890	246	86	292	320	214	202	194
No	78.7%	78.9%	80.9%	77.2%	78.6%	78.1%	71.3%	82.3%	85.7%	78.3%	80.1%	78.9%	77.2%	77.7%	78.7%	81.8%	79.8%
								G	G								
Sigma	1552	304	367	549	332	1173	80	215	84	1136	307	109	378	412	272	247	243
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base

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Table 7-5: What is your overall opinion of green insect control products? Base: Plan to Purchase Green Insect Control Products in the Next 12 Months

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed Respondents	330	64*	70*	125	71*	257	23**	38*	12**	246	61*	23**	86*	92*	58*	45*	49*
I don't know much about them, but may try them in the next 12 months	199	36	47	75	41	157	11	23	8	145	41	13	59	52	34	29	25
	60.3%	56.3%	67.1%	60.0%	57.7%	61.1%	47.8%	60.5%	66.7%	58.9%	67.2%	56.5%	68.6%	56.5%	58.6%	64.4%	51.0%
													nQ				
I like them and will continue to use more of them during the next 12 months	60	16	7	23	14	43	7	9	1	46	10	4	14	16	8	7	15
	18.2%	25.0%	10.0%	18.4%	19.7%	16.7%	30.4%	23.7%	8.3%	18.7%	16.4%	17.4%	16.3%	17.4%	13.8%	15.6%	30.6%
		C															mnOp
I like them and will continue to use some of them in the next 12 months	36	7	11	11	7	26	3	4	3	25	9	2	5	11	9	5	6
	10.9%	10.9%	15.7%	8.8%	9.9%	10.1%	13.0%	10.5%	25.0%	10.2%	14.8%	8.7%	5.8%	12.0%	15.5%	11.1%	12.2%
															m		
They are okay, but I prefer traditional pesticides	20	5	2	8	5	18	2	0	0	19	0	1	4	6	4	4	2
	6.1%	7.8%	2.9%	6.4%	7.0%	7.0%	8.7%	-	-	7.7%	-	4.3%	4.7%	6.5%	6.9%	8.9%	4.1%
						h				K							
I don't like them because they cost too much	8	0	2	5	1	6	0	2	0	6	1	1	3	3	1	0	1
	2.4%	-	2.9%	4.0%	1.4%	2.3%	-	5.3%	-	2.4%	1.6%	4.3%	3.5%	3.3%	1.7%	-	2.0%
I don't like them because they don't work very well	4	0	1	3	0	4	0	0	0	2	0	2	1	2	1	0	0
	1.2%	-	1.4%	2.4%	-	1.6%	-	-	-	0.8%	-	8.7%	1.2%	2.2%	1.7%	-	-
Other (Please specify)	3	0	0	0	3	3	0	0	0	3	0	0	0	2	1	0	0
	0.9%	-	-	-	4.2%	1.2%	-	-	-	1.2%	-	-	-	2.2%	1.7%	-	-
					bcD												
Sigma	330	64	70	125	71	257	23	38	12	246	61	23	86	92	58	45	49
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base; ** very small base (under 30) ineligible for sig testing

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Table 7-6: Would You Be Willing to Pay More for a Green Insect Control Product if it Worked Just as Well as a Traditional Pesticide? Base: Plan to Purchase Green Insect Control Products in the Next 12 Months

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed Respondents	330	64*	70*	125	71*	257	23**	38*	12**	246	61*	23**	86*	92*	58*	45*	49*
Yes	234	43	46	94	51	187	17	23	7	170	48	16	53	65	44	35	37
	70.9%	67.2%	65.7%	75.2%	71.8%	72.8%	73.9%	60.5%	58.3%	69.1%	78.7%	69.6%	61.6%	70.7%	75.9%	77.8%	75.5%
															m	m	
No	96	21	24	31	20	70	6	15	5	76	13	7	33	27	14	10	12
	29.1%	32.8%	34.3%	24.8%	28.2%	27.2%	26.1%	39.5%	41.7%	30.9%	21.3%	30.4%	38.4%	29.3%	24.1%	22.2%	24.5%
													op				
Sigma	330	64	70	125	71	257	23	38	12	246	61	23	86	92	58	45	49
	100.0 %	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base; ** very small base (under 30) ineligible for sig testing

Table 7-7: How Much More Would You be Willing to Pay for a Green if it Worked Just as Well as a Traditional Pesticide? Base: Would Pay More for Green Insect Control Products

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed Respondents	234	43*	46*	94*	51*	187	17**	23**	7**	170	48*	16**	53*	65*	44*	35*	37*
10% more	152	25	28	65	34	125	6	15	6	108	34	10	37	41	30	27	17
	65.0%	58.1%	60.9%	69.1%	66.7%	66.8%	35.3%	65.2%	85.7%	63.5%	70.8%	62.5%	69.8%	63.1%	68.2%	77.1%	45.9%
													Q	q	Q	Q	
25% more	60	14	14	18	14	45	8	7	0	45	10	5	11	20	10	7	12
	25.6%	32.6%	30.4%	19.1%	27.5%	24.1%	47.1%	30.4%	-	26.5%	20.8%	31.3%	20.8%	30.8%	22.7%	20.0%	32.4%
		d															
50% more	16	3	2	8	3	12	3	1	0	14	2	0	3	3	2	1	7
	6.8%	7.0%	4.3%	8.5%	5.9%	6.4%	17.6%	4.3%	-	8.2%	4.2%	-	5.7%	4.6%	4.5%	2.9%	18.9%
																	mNOP
100% more	6	1	2	3	0	5	0	0	1	3	2	1	2	1	2	0	1
	2.6%	2.3%	4.3%	3.2%	-	2.7%	-	-	14.3%	1.8%	4.2%	6.3%	3.8%	1.5%	4.5%	-	2.7%
Sigma	234	43	46	94	51	187	17	23	7	170	48	16	53	65	44	35	37
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base; ** very small base (under 30) ineligible for sig testing

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Table 7-8: Would You be Willing to Pay More for a Green Insect Control Product if it Worked About 75% as well as a Traditional Pesticide? Base: Plan to Purchase Green Insect Control Products in the Next 12 Months

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed Respondents	330	64*	70*	125	71*	257	23**	38*	12**	246	61*	23**	86*	92*	58*	45*	49*
Yes	151	29	30	54	38	116	17	15	3	116	26	9	39	39	27	22	24
	45.8%	45.3%	42.9%	43.2%	53.5%	45.1%	73.9%	39.5%	25.0%	47.2%	42.6%	39.1%	45.3%	42.4%	46.6%	48.9%	49.0%
No	179	35	40	71	33	141	6	23	9	130	35	14	47	53	31	23	25
	54.2%	54.7%	57.1%	56.8%	46.5%	54.9%	26.1%	60.5%	75.0%	52.8%	57.4%	60.9%	54.7%	57.6%	53.4%	51.1%	51.0%
Sigma	330	64	70	125	71	257	23	38	12	246	61	23	86	92	58	45	49
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base; ** very small base (under 30) ineligible for sig testing

Table 7-9: Would You be More Likely to Use a Green Insect Control Product for a Specific Use? Base: Plan to Purchase Green Insect Control Products in the Next 12 Months

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed Respondents	330	64*	70*	125	71*	257	23**	38*	12**	246	61*	23**	86*	92*	58*	45*	49*
Yes	278	56	57	103	62	214	21	34	9	202	55	21	73	78	52	38	37
	84.2%	87.5%	81.4%	82.4%	87.3%	83.3%	91.3%	89.5%	75.0%	82.1%	90.2%	91.3%	84.9%	84.8%	89.7%	84.4%	75.5%
															q		
No	52	8	13	22	9	43	2	4	3	44	6	2	13	14	6	7	12
	15.8%	12.5%	18.6%	17.6%	12.7%	16.7%	8.7%	10.5%	25.0%	17.9%	9.8%	8.7%	15.1%	15.2%	10.3%	15.6%	24.5%
																	o
Sigma	330	64	70	125	71	257	23	38	12	246	61	23	86	92	58	45	49
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base; ** very small base (under 30) ineligible for sig testing

Table 7-10: Where Do You Obtain Information About Green Insect Control Products? Base: Plan to Purchase Green Insect Control Products in the Next 12 Months

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed Respondents	330	64*	70*	125	71*	257	23**	38*	12**	246	61*	23**	86*	92*	58*	45*	49*
Magazines	70	12	15	31	12	51	6	9	4	48	19	3	20	20	10	10	10
	21.2%	18.8%	21.4%	24.8%	16.9%	19.8%	26.1%	23.7%	33.3%	19.5%	31.1%	13.0%	23.3%	21.7%	17.2%	22.2%	20.4%
											j						
Newspapers	43	13	4	16	10	25	9	8	1	37	5	1	7	12	9	5	10
	13.0%	20.3%	5.7%	12.8%	14.1%	9.7%	39.1%	21.1%	8.3%	15.0%	8.2%	4.3%	8.1%	13.0%	15.5%	11.1%	20.4%
		C			c			F									M
On-line	177	31	42	69	35	132	13	23	9	125	41	11	45	53	30	22	27
	53.6%	48.4%	60.0%	55.2%	49.3%	51.4%	56.5%	60.5%	75.0%	50.8%	67.2%	47.8%	52.3%	57.6%	51.7%	48.9%	55.1%
											J						
Television	71	12	18	25	16	44	10	13	4	54	15	2	22	16	15	6	12
	21.5%	18.8%	25.7%	20.0%	22.5%	17.1%	43.5%	34.2%	33.3%	22.0%	24.6%	8.7%	25.6%	17.4%	25.9%	13.3%	24.5%
								F									
Garden center	150	23	33	55	39	120	10	14	6	105	36	9	50	40	29	16	15
	45.5%	35.9%	47.1%	44.0%	54.9%	46.7%	43.5%	36.8%	50.0%	42.7%	59.0%	39.1%	58.1%	43.5%	50.0%	35.6%	30.6%
					B						J		nPQ		Q		
Home Improvement center	110	23	27	42	18	88	4	12	6	76	27	7	26	28	29	14	13
	33.3%	35.9%	38.6%	33.6%	25.4%	34.2%	17.4%	31.6%	50.0%	30.9%	44.3%	30.4%	30.2%	30.4%	50.0%	31.1%	26.5%
			e								J				MNpQ		
Friends or neighbors	78	16	16	30	16	62	7	8	1	51	20	7	17	30	11	13	7
	23.6%	25.0%	22.9%	24.0%	22.5%	24.1%	30.4%	21.1%	8.3%	20.7%	32.8%	30.4%	19.8%	32.6%	19.0%	28.9%	14.3%
											J			moQ		q	
Other (Please specify)	22	5	6	8	3	17	0	3	2	19	2	1	4	8	4	3	3
	6.7%	7.8%	8.6%	6.4%	4.2%	6.6%	-	7.9%	16.7%	7.7%	3.3%	4.3%	4.7%	8.7%	6.9%	6.7%	6.1%
Sigma	721	135	161	276	149	539	59	90	33	515	165	41	191	207	137	89	97
	218.5%	210.9%	230.0%	220.8%	209.9%	209.7%	256.5%	236.8%	275.0%	209.3%	270.5%	178.3%	222.1%	225.0%	236.2%	197.8%	198.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base; ** very small base (under 30) ineligible for sig testing

Kline

Table 7-11: Would You Be More Likely to Use a Green Insect Control Product Inside Your Home or Outside? Base: Plan to Purchase Green Insect Control Products in the Next 12 Months

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed Respondents	330	64*	70*	125	71*	257	23**	38*	12**	246	61*	23**	86*	92*	58*	45*	49*
Inside	77	21	17	27	12	55	11	9	2	57	13	7	25	17	14	5	16
	23.3%	32.8%	24.3%	21.6%	16.9%	21.4%	47.8%	23.7%	16.7%	23.2%	21.3%	30.4%	29.1%	18.5%	24.1%	11.1%	32.7%
		dE											nP		p		nP
Outside	64	14	12	20	18	51	2	7	4	46	14	4	14	19	14	7	10
	19.4%	21.9%	17.1%	16.0%	25.4%	19.8%	8.7%	18.4%	33.3%	18.7%	23.0%	17.4%	16.3%	20.7%	24.1%	15.6%	20.4%
Both equally	189	29	41	78	41	151	10	22	6	143	34	12	47	56	30	33	23
	57.3%	45.3%	58.6%	62.4%	57.7%	58.8%	43.5%	57.9%	50.0%	58.1%	55.7%	52.2%	54.7%	60.9%	51.7%	73.3%	46.9%
				B												MOQ	
Sigma	330	64	70	125	71	257	23	38	12	246	61	23	86	92	58	45	49
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base; ** very small base (under 30) ineligible for sig testing

Table 7-12: What Do You Like About Using Green Insect Control Products? Base: Plan to Purchase Green Insect Control Products in the Next 12 Months

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed Respondents	330	64*	70*	125	71*	257	23**	38*	12**	246	61*	23**	86*	92*	58*	45*	49*
Safer for me and my family	268	51	61	101	55	208	17	32	11	194	54	20	70	80	49	32	37
	81.2%	79.7%	87.1%	80.8%	77.5%	80.9%	73.9%	84.2%	91.7%	78.9%	88.5%	87.0%	81.4%	87.0%	84.5%	71.1%	75.5%
											j			Pq			
Safer for the environment	248	49	57	89	53	190	16	32	10	182	52	14	61	74	43	40	30
	75.2%	76.6%	81.4%	71.2%	74.6%	73.9%	69.6%	84.2%	83.3%	74.0%	85.2%	60.9%	70.9%	80.4%	74.1%	88.9%	61.2%
											j			Q		MoQ	
Works the way I expected	59	13	7	21	18	43	6	9	1	43	15	1	14	16	12	6	11
	17.9%	20.3%	10.0%	16.8%	25.4%	16.7%	26.1%	23.7%	8.3%	17.5%	24.6%	4.3%	16.3%	17.4%	20.7%	13.3%	22.4%
		c			C												
Doesn't leave a chemical residue	141	20	25	60	36	102	9	24	6	110	26	5	33	40	27	19	22
	42.7%	31.3%	35.7%	48.0%	50.7%	39.7%	39.1%	63.2%	50.0%	44.7%	42.6%	21.7%	38.4%	43.5%	46.6%	42.2%	44.9%
				Bc	Bc			F									
Works fast	49	7	8	19	15	37	3	6	3	36	12	1	15	12	10	4	8
	14.8%	10.9%	11.4%	15.2%	21.1%	14.4%	13.0%	15.8%	25.0%	14.6%	19.7%	4.3%	17.4%	13.0%	17.2%	8.9%	16.3%
Works for a short period of time	21	3	4	10	4	18	2	0	1	14	6	1	8	4	3	3	3
	6.4%	4.7%	5.7%	8.0%	5.6%	7.0%	8.7%	-	8.3%	5.7%	9.8%	4.3%	9.3%	4.3%	5.2%	6.7%	6.1%
						h											
Derived from an organic source	115	17	25	41	32	90	4	16	5	82	25	8	26	35	23	17	14
	34.8%	26.6%	35.7%	32.8%	45.1%	35.0%	17.4%	42.1%	41.7%	33.3%	41.0%	34.8%	30.2%	38.0%	39.7%	37.8%	28.6%
					Bd												
Other (Specify)	6	0	1	1	4	6	0	0	0	5	1	0	1	3	0	1	1
	1.8%	-	1.4%	0.8%	5.6%	2.3%	-	-	-	2.0%	1.6%	-	1.2%	3.3%	-	2.2%	2.0%
					bD												
Sigma	907	160	188	342	217	694	57	119	37	666	191	50	228	264	167	122	126
	274.8%	250.0%	268.6%	273.6%	305.6%	270.0%	247.8%	313.2%	308.3%	270.7%	313.1%	217.4%	265.1%	287.0%	287.9%	271.1%	257.1%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base; ** very small base (under 30) ineligible for sig testing

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Table 7-13: What Do You Dislike About Using Green Insect Control Products? Base: Plan to Purchase Green Insect Control Products in the Next 12 Months

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed Respondents	330	64*	70*	125	71*	257	23**	38*	12**	246	61*	23**	86*	92*	58*	45*	49*
They don't work as well	108	22	27	35	24	87	6	11	4	80	22	6	24	28	19	15	22
	32.7%	34.4%	38.6%	28.0%	33.8%	33.9%	26.1%	28.9%	33.3%	32.5%	36.1%	26.1%	27.9%	30.4%	32.8%	33.3%	44.9%
																	Mn
They don't last as long	94	19	19	32	24	70	9	13	2	69	19	6	23	26	17	11	17
	28.5%	29.7%	27.1%	25.6%	33.8%	27.2%	39.1%	34.2%	16.7%	28.0%	31.1%	26.1%	26.7%	28.3%	29.3%	24.4%	34.7%
They cost more	223	41	57	85	40	173	13	29	8	167	39	17	60	62	40	33	28
	67.6%	64.1%	81.4%	68.0%	56.3%	67.3%	56.5%	76.3%	66.7%	67.9%	63.9%	73.9%	69.8%	67.4%	69.0%	73.3%	57.1%
			BDE														
Other (Specify)	40	11	5	17	7	33	3	3	1	28	9	3	8	13	6	6	7
	12.1%	17.2%	7.1%	13.6%	9.9%	12.8%	13.0%	7.9%	8.3%	11.4%	14.8%	13.0%	9.3%	14.1%	10.3%	13.3%	14.3%
		c															
Sigma	465	93	108	169	95	363	31	56	15	344	89	32	115	129	82	65	74
	140.9%	145.3%	154.3%	135.2%	133.8%	141.2%	134.8%	147.4%	125.0%	139.8%	145.9%	139.1%	133.7%	140.2%	141.4%	144.4%	151.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base; ** very small base (under 30) ineligible for sig testing

Table 7-14: Please Rate the Following Green Insect Control Product Characteristics. Rate Each One on a Scale of 1 to 7, with 1 Being Not Important and 7 Being Very Important. (Made with a Botanical Pyrethrum) Base: Plan to Purchase Green Insect Control Products in the Next 12 Months

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed Respondents	330	64*	70*	125	71*	257	23**	38*	12**	246	61*	23**	86*	92*	58*	45*	49*
7 Very Important	66	8	15	27	16	52	3	7	4	42	21	3	18	19	12	8	9
	20.0%	12.5%	21.4%	21.6%	22.5%	20.2%	13.0%	18.4%	33.3%	17.1%	34.4%	13.0%	20.9%	20.7%	20.7%	17.8%	18.4%
											J						
6	69	14	16	30	9	55	5	8	1	56	6	7	11	14	18	11	15
	20.9%	21.9%	22.9%	24.0%	12.7%	21.4%	21.7%	21.1%	8.3%	22.8%	9.8%	30.4%	12.8%	15.2%	31.0%	24.4%	30.6%
				e						K					MN	m	MN
5	51	10	13	19	9	39	3	9	0	40	9	2	15	11	11	6	8
	15.5%	15.6%	18.6%	15.2%	12.7%	15.2%	13.0%	23.7%	-	16.3%	14.8%	8.7%	17.4%	12.0%	19.0%	13.3%	16.3%
4 Neutral	114	24	22	37	31	88	9	11	6	82	21	11	36	40	11	15	12
	34.5%	37.5%	31.4%	29.6%	43.7%	34.2%	39.1%	28.9%	50.0%	33.3%	34.4%	47.8%	41.9%	43.5%	19.0%	33.3%	24.5%
					D								OQ	OQ			
3	10	2	2	3	3	6	1	2	1	8	2	0	2	2	2	2	2
	3.0%	3.1%	2.9%	2.4%	4.2%	2.3%	4.3%	5.3%	8.3%	3.3%	3.3%	-	2.3%	2.2%	3.4%	4.4%	4.1%
2	10	2	1	5	2	7	2	1	0	10	0	0	2	3	3	1	1
	3.0%	3.1%	1.4%	4.0%	2.8%	2.7%	8.7%	2.6%	-	4.1%	-	-	2.3%	3.3%	5.2%	2.2%	2.0%
1 Not Important	10	4	1	4	1	10	0	0	0	8	2	0	2	3	1	2	2
	3.0%	6.3%	1.4%	3.2%	1.4%	3.9%	-	-	-	3.3%	3.3%	-	2.3%	3.3%	1.7%	4.4%	4.1%
Sigma	330	64	70	125	71	257	23	38	12	246	61	23	86	92	58	45	49
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base; ** very small base (under 30) ineligible for sig testing

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Table 7-15: Please Rate the Following Green Insect Control Product Characteristics. Rate Each One on a Scale of 1 to 7, with 1 Being Not Important and 7 Being Very Important. (Degrades Quickly in Sunlight Leaving no Residue) Base: Plan to Purchase Green Insect Control Products in the Next 12 Months

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed Respondents	330	64*	70*	125	71*	257	23**	38*	12**	246	61*	23**	86*	92*	58*	45*	49*
7 Very Important	94	20	19	33	22	75	3	10	6	69	20	5	34	21	19	10	10
	28.5%	31.3%	27.1%	26.4%	31.0%	29.2%	13.0%	26.3%	50.0%	28.0%	32.8%	21.7%	39.5%	22.8%	32.8%	22.2%	20.4%
													NPQ				
6	66	18	13	25	10	52	4	9	1	56	6	4	10	21	6	12	17
	20.0%	28.1%	18.6%	20.0%	14.1%	20.2%	17.4%	23.7%	8.3%	22.8%	9.8%	17.4%	11.6%	22.8%	10.3%	26.7%	34.7%
		E								K				mo		MO	MO
5	67	9	15	29	14	54	6	6	1	40	19	8	16	18	14	9	10
	20.3%	14.1%	21.4%	23.2%	19.7%	21.0%	26.1%	15.8%	8.3%	16.3%	31.1%	34.8%	18.6%	19.6%	24.1%	20.0%	20.4%
											J						
4 Neutral	73	9	17	28	19	54	6	10	3	56	13	4	20	24	12	9	8
	22.1%	14.1%	24.3%	22.4%	26.8%	21.0%	26.1%	26.3%	25.0%	22.8%	21.3%	17.4%	23.3%	26.1%	20.7%	20.0%	16.3%
					b												
3	6	1	0	1	4	3	2	1	0	6	0	0	0	1	2	2	1
	1.8%	1.6%	-	0.8%	5.6%	1.2%	8.7%	2.6%	-	2.4%	-	-	-	1.1%	3.4%	4.4%	2.0%
					CD										m	m	
2	7	5	0	1	1	5	1	1	0	5	2	0	2	3	1	0	1
	2.1%	7.8%	-	0.8%	1.4%	1.9%	4.3%	2.6%	-	2.0%	3.3%	-	2.3%	3.3%	1.7%	-	2.0%
		CDe															
1 Not Important	17	2	6	8	1	14	1	1	1	14	1	2	4	4	4	3	2
	5.2%	3.1%	8.6%	6.4%	1.4%	5.4%	4.3%	2.6%	8.3%	5.7%	1.6%	8.7%	4.7%	4.3%	6.9%	6.7%	4.1%
			e														
Sigma	330	64	70	125	71	257	23	38	12	246	61	23	86	92	58	45	49
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base; ** very small base (under 30) ineligible for sig testing

Kline

Table 7-16: Please Rate the Following Green Insect Control Product Characteristics. Rate Each One on a Scale of 1 to 7, with 1 Being Not Important and 7 Being Very Important. (Proven Effective Through Independent Testing)
Base: Plan to Purchase Green Insect Control Products in the Next 12 Months

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed Respondents	330	64*	70*	125	71*	257	23**	38*	12**	246	61*	23**	86*	92*	58*	45*	49*
7 Very Important	146	31	35	51	29	118	6	15	7	105	29	12	42	40	31	19	14
	44.2%	48.4%	50.0%	40.8%	40.8%	45.9%	26.1%	39.5%	58.3%	42.7%	47.5%	52.2%	48.8%	43.5%	53.4%	42.2%	28.6%
													Q	q	Q		
6	90	15	14	42	19	75	4	9	2	64	20	6	15	28	15	11	21
	27.3%	23.4%	20.0%	33.6%	26.8%	29.2%	17.4%	23.7%	16.7%	26.0%	32.8%	26.1%	17.4%	30.4%	25.9%	24.4%	42.9%
				C										M			Mop
5	36	5	9	17	5	25	4	7	0	28	7	1	13	5	6	8	4
	10.9%	7.8%	12.9%	13.6%	7.0%	9.7%	17.4%	18.4%	-	11.4%	11.5%	4.3%	15.1%	5.4%	10.3%	17.8%	8.2%
													N			N	
4 Neutral	38	7	8	11	12	29	5	3	1	32	3	3	11	10	5	6	6
	11.5%	10.9%	11.4%	8.8%	16.9%	11.3%	21.7%	7.9%	8.3%	13.0%	4.9%	13.0%	12.8%	10.9%	8.6%	13.3%	12.2%
					d					k							
3	9	4	0	1	4	5	2	2	0	7	2	0	2	4	1	1	1
	2.7%	6.3%	-	0.8%	5.6%	1.9%	8.7%	5.3%	-	2.8%	3.3%	-	2.3%	4.3%	1.7%	2.2%	2.0%
		CD			CD												
2	5	2	2	1	0	2	2	1	0	4	0	1	2	2	0	0	1
	1.5%	3.1%	2.9%	0.8%	-	0.8%	8.7%	2.6%	-	1.6%	-	4.3%	2.3%	2.2%	-	-	2.0%
1 Not Important	6	0	2	2	2	3	0	1	2	6	0	0	1	3	0	0	2
	1.8%	-	2.9%	1.6%	2.8%	1.2%	-	2.6%	16.7%	2.4%	-	-	1.2%	3.3%	-	-	4.1%
Sigma	330	64	70	125	71	257	23	38	12	246	61	23	86	92	58	45	49
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base; ** very small base (under 30) ineligible for sig testing

Table 7-17: Please Rate the Following Green Insect Control Product Characteristics. Rate Each One on a Scale of 1 to 7, with 1 Being Not Important and 7 Being Very Important. (Is From a Recognizable Company or Brand) Base: Plan to Purchase Green Insect Control Products in the Next 12 Months

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed Respondents	330	64*	70*	125	71*	257	23**	38*	12**	246	61*	23**	86*	92*	58*	45*	49*
7 VeryImportant	85	15	19	36	15	74	2	7	2	62	19	4	24	22	17	12	10
	25.8%	23.4%	27.1%	28.8%	21.1%	28.8%	8.7%	18.4%	16.7%	25.2%	31.1%	17.4%	27.9%	23.9%	29.3%	26.7%	20.4%
6	67	12	12	30	13	52	5	8	2	48	13	6	19	17	13	8	10
	20.3%	18.8%	17.1%	24.0%	18.3%	20.2%	21.7%	21.1%	16.7%	19.5%	21.3%	26.1%	22.1%	18.5%	22.4%	17.8%	20.4%
5	59	12	12	24	11	47	4	7	1	43	11	5	14	14	10	12	9
	17.9%	18.8%	17.1%	19.2%	15.5%	18.3%	17.4%	18.4%	8.3%	17.5%	18.0%	21.7%	16.3%	15.2%	17.2%	26.7%	18.4%
4 Neutral	78	16	18	27	17	56	8	10	4	60	14	4	22	22	12	11	11
	23.6%	25.0%	25.7%	21.6%	23.9%	21.8%	34.8%	26.3%	33.3%	24.4%	23.0%	17.4%	25.6%	23.9%	20.7%	24.4%	22.4%
3	11	3	1	3	4	9	0	1	1	9	1	1	2	3	4	0	2
	3.3%	4.7%	1.4%	2.4%	5.6%	3.5%	-	2.6%	8.3%	3.7%	1.6%	4.3%	2.3%	3.3%	6.9%	-	4.1%
															p		
2	13	3	3	2	5	7	2	2	2	11	1	1	3	7	1	1	1
	3.9%	4.7%	4.3%	1.6%	7.0%	2.7%	8.7%	5.3%	16.7%	4.5%	1.6%	4.3%	3.5%	7.6%	1.7%	2.2%	2.0%
					d												
1 NotImportant	17	3	5	3	6	12	2	3	0	13	2	2	2	7	1	1	6
	5.2%	4.7%	7.1%	2.4%	8.5%	4.7%	8.7%	7.9%	-	5.3%	3.3%	8.7%	2.3%	7.6%	1.7%	2.2%	12.2%
					d												MOp
Sigma	330	64	70	125	71	257	23	38	12	246	61	23	86	92	58	45	49
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base; ** very small base (under 30) ineligible for sig testing

Kline

Table 7-18: Please Rate the Following Green Insect Control Product Characteristics. Rate Each One on a Scale of 1 to 7, with 1 Being Not Important and 7 Being Very Important. (EPA Registered) Base: Plan to Purchase Green Insect Control Products in the Next 12 Months

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed Respondents	330	64*	70*	125	71*	257	23**	38*	12**	246	61*	23**	86*	92*	58*	45*	49*
7 Very Important	135	32	29	47	27	112	4	13	6	95	29	11	43	30	26	19	17
	40.9%	50.0%	41.4%	37.6%	38.0%	43.6%	17.4%	34.2%	50.0%	38.6%	47.5%	47.8%	50.0%	32.6%	44.8%	42.2%	34.7%
													Nq				
6	64	8	15	30	11	53	5	5	1	51	10	3	10	21	14	8	11
	19.4%	12.5%	21.4%	24.0%	15.5%	20.6%	21.7%	13.2%	8.3%	20.7%	16.4%	13.0%	11.6%	22.8%	24.1%	17.8%	22.4%
				b										m	m		m
5	44	9	9	17	9	28	6	10	0	32	8	4	12	11	7	8	6
	13.3%	14.1%	12.9%	13.6%	12.7%	10.9%	26.1%	26.3%	-	13.0%	13.1%	17.4%	14.0%	12.0%	12.1%	17.8%	12.2%
								F									
4 Neutral	58	10	10	21	17	44	5	5	4	45	9	4	14	18	8	7	11
	17.6%	15.6%	14.3%	16.8%	23.9%	17.1%	21.7%	13.2%	33.3%	18.3%	14.8%	17.4%	16.3%	19.6%	13.8%	15.6%	22.4%
3	11	3	1	4	3	7	1	3	0	8	3	0	3	4	1	1	2
	3.3%	4.7%	1.4%	3.2%	4.2%	2.7%	4.3%	7.9%	-	3.3%	4.9%	-	3.5%	4.3%	1.7%	2.2%	4.1%
2	5	1	2	2	0	2	1	2	0	5	0	0	1	3	0	1	0
	1.5%	1.6%	2.9%	1.6%	-	0.8%	4.3%	5.3%	-	2.0%	-	-	1.2%	3.3%	-	2.2%	-
								F									
1 Not Important	13	1	4	4	4	11	1	0	1	10	2	1	3	5	2	1	2
	3.9%	1.6%	5.7%	3.2%	5.6%	4.3%	4.3%	-	8.3%	4.1%	3.3%	4.3%	3.5%	5.4%	3.4%	2.2%	4.1%
Sigma	330	64	70	125	71	257	23	38	12	246	61	23	86	92	58	45	49
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base; ** very small base (under 30) ineligible for sig testing

Kline

Table 7-19: Please Rate the Following Green Insect Control Product Characteristics. Rate Each One on a Scale of 1 to 7, with 1 Being Not Important and 7 Being Very Important. (Made with Essential Oils) Base: Plan to Purchase Green Insect Control Products in the Next 12 Months

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed Respondents	330	64*	70*	125	71*	257	23**	38*	12**	246	61*	23**	86*	92*	58*	45*	49*
7 Very Important	74	13	15	30	16	60	3	7	4	50	21	3	18	23	16	6	11
	22.4%	20.3%	21.4%	24.0%	22.5%	23.3%	13.0%	18.4%	33.3%	20.3%	34.4%	13.0%	20.9%	25.0%	27.6%	13.3%	22.4%
											J				p		
6	63	13	11	29	10	53	1	8	1	54	6	3	15	12	9	12	15
	19.1%	20.3%	15.7%	23.2%	14.1%	20.6%	4.3%	21.1%	8.3%	22.0%	9.8%	13.0%	17.4%	13.0%	15.5%	26.7%	30.6%
										K						n	mNo
5	59	9	16	20	14	46	5	7	1	38	14	7	22	10	13	7	7
	17.9%	14.1%	22.9%	16.0%	19.7%	17.9%	21.7%	18.4%	8.3%	15.4%	23.0%	30.4%	25.6%	10.9%	22.4%	15.6%	14.3%
													N		n		
4 Neutral	99	21	19	36	23	73	10	10	6	77	14	8	23	36	15	16	9
	30.0%	32.8%	27.1%	28.8%	32.4%	28.4%	43.5%	26.3%	50.0%	31.3%	23.0%	34.8%	26.7%	39.1%	25.9%	35.6%	18.4%
														moQ		q	
3	6	1	0	2	3	3	0	3	0	5	1	0	2	1	1	2	0
	1.8%	1.6%	-	1.6%	4.2%	1.2%	-	7.9%	-	2.0%	1.6%	-	2.3%	1.1%	1.7%	4.4%	-
					c			F									
2	17	4	6	4	3	11	3	3	0	13	3	1	6	4	2	1	4
	5.2%	6.3%	8.6%	3.2%	4.2%	4.3%	13.0%	7.9%	-	5.3%	4.9%	4.3%	7.0%	4.3%	3.4%	2.2%	8.2%
1 Not Important	12	3	3	4	2	11	1	0	0	9	2	1	0	6	2	1	3
	3.6%	4.7%	4.3%	3.2%	2.8%	4.3%	4.3%	-	-	3.7%	3.3%	4.3%	-	6.5%	3.4%	2.2%	6.1%
														M	m		M
Sigma	330	64	70	125	71	257	23	38	12	246	61	23	86	92	58	45	49
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base; ** very small base (under 30) ineligible for sig testing

Table 7-20: Please Rate the Following Green Insect Control Product Characteristics. Rate Each One on a Scale of 1 to 7, with 1 Being Not Important and 7 Being Very Important. (Made from Natural Ingredients) Base: Plan to Purchase Green Insect Control Products in the Next 12 Months

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed Respondents	330	64*	70*	125	71*	257	23**	38*	12**	246	61*	23**	86*	92*	58*	45*	49*
7 Very Important	136	28	25	53	30	106	5	18	7	101	27	8	39	39	23	19	16
	41.2%	43.8%	35.7%	42.4%	42.3%	41.2%	21.7%	47.4%	58.3%	41.1%	44.3%	34.8%	45.3%	42.4%	39.7%	42.2%	32.7%
6	90	15	20	35	20	75	5	10	0	64	18	8	20	22	22	14	12
	27.3%	23.4%	28.6%	28.0%	28.2%	29.2%	21.7%	26.3%	-	26.0%	29.5%	34.8%	23.3%	23.9%	37.9%	31.1%	24.5%
															mn		
5	43	10	12	16	5	33	4	5	1	34	8	1	12	14	4	3	10
	13.0%	15.6%	17.1%	12.8%	7.0%	12.8%	17.4%	13.2%	8.3%	13.8%	13.1%	4.3%	14.0%	15.2%	6.9%	6.7%	20.4%
			e														Op
4 Neutral	45	6	11	16	12	33	7	2	3	34	5	6	12	13	7	6	7
	13.6%	9.4%	15.7%	12.8%	16.9%	12.8%	30.4%	5.3%	25.0%	13.8%	8.2%	26.1%	14.0%	14.1%	12.1%	13.3%	14.3%
3	12	2	2	4	4	7	1	3	1	9	3	0	3	3	2	2	2
	3.6%	3.1%	2.9%	3.2%	5.6%	2.7%	4.3%	7.9%	8.3%	3.7%	4.9%	-	3.5%	3.3%	3.4%	4.4%	4.1%
2	2	2	0	0	0	1	1	0	0	2	0	0	0	1	0	1	0
	0.6%	3.1%	-	-	-	0.4%	4.3%	-	-	0.8%	-	-	-	1.1%	-	2.2%	-
		D															
1 Not Important	2	1	0	1	0	2	0	0	0	2	0	0	0	0	0	0	2
	0.6%	1.6%	-	0.8%	-	0.8%	-	-	-	0.8%	-	-	-	-	-	-	4.1%
																	mn
Sigma	330	64	70	125	71	257	23	38	12	246	61	23	86	92	58	45	49
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base; ** very small base (under 30) ineligible for sig testing

Kline

Table 7-21: Please Rate the Following Green Insect Control Product Characteristics. Rate Each One on a Scale of 1 to 7, with 1 Being Not Important and 7 Being Very Important. (Safe for the Environment) Base: Plan to Purchase Green Insect Control Products in the Next 12 Months

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed Respondents	330	64*	70*	125	71*	257	23**	38*	12**	246	61*	23**	86*	92*	58*	45*	49*
7 Very Important	188	37	45	65	41	154	6	20	8	137	39	12	56	55	30	25	22
	57.0%	57.8%	64.3%	52.0%	57.7%	59.9%	26.1%	52.6%	66.7%	55.7%	63.9%	52.2%	65.1%	59.8%	51.7%	55.6%	44.9%
			d										Q	q			
6	67	14	12	30	11	51	5	9	2	51	10	6	13	16	14	10	14
	20.3%	21.9%	17.1%	24.0%	15.5%	19.8%	21.7%	23.7%	16.7%	20.7%	16.4%	26.1%	15.1%	17.4%	24.1%	22.2%	28.6%
																	m
5	35	4	6	14	11	25	5	5	0	25	6	4	7	11	4	5	8
	10.6%	6.3%	8.6%	11.2%	15.5%	9.7%	21.7%	13.2%	-	10.2%	9.8%	17.4%	8.1%	12.0%	6.9%	11.1%	16.3%
					b												
4 Neutral	27	5	5	13	4	19	4	3	1	22	4	1	8	5	7	3	4
	8.2%	7.8%	7.1%	10.4%	5.6%	7.4%	17.4%	7.9%	8.3%	8.9%	6.6%	4.3%	9.3%	5.4%	12.1%	6.7%	8.2%
3	2	2	0	0	0	2	0	0	0	2	0	0	0	1	0	1	0
	0.6%	3.1%	-	-	-	0.8%	-	-	-	0.8%	-	-	-	1.1%	-	2.2%	-
		D															
2	6	1	2	0	3	2	3	1	0	5	1	0	0	4	2	0	0
	1.8%	1.6%	2.9%	-	4.2%	0.8%	13.0%	2.6%	-	2.0%	1.6%	-	-	4.3%	3.4%	-	-
			d		D									m	m		
1 Not Important	5	1	0	3	1	4	0	0	1	4	1	0	2	0	1	1	1
	1.5%	1.6%	-	2.4%	1.4%	1.6%	-	-	8.3%	1.6%	1.6%	-	2.3%	-	1.7%	2.2%	2.0%
Sigma	330	64	70	125	71	257	23	38	12	246	61	23	86	92	58	45	49
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base; ** very small base (under 30) ineligible for sig testing

Table 7-22: Please Rate the Following Green Insect Control Product Characteristics. Rate Each One on a Scale of 1 to 7, with 1 Being Not Important and 7 Being Very Important. (Safe for Me and My Family) Base: Plan to Purchase Green Insect Control Products in the Next 12 Months

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed Respondents	330	64*	70*	125	71*	257	23**	38*	12**	246	61*	23**	86*	92*	58*	45*	49*
7 Very Important	236	49	51	86	50	194	10	24	8	169	49	18	66	62	45	33	30
	71.5%	76.6%	72.9%	68.8%	70.4%	75.5%	43.5%	63.2%	66.7%	68.7%	80.3%	78.3%	76.7%	67.4%	77.6%	73.3%	61.2%
											j		q		q		
6	45	7	8	22	8	34	5	5	1	37	6	2	5	14	7	5	14
	13.6%	10.9%	11.4%	17.6%	11.3%	13.2%	21.7%	13.2%	8.3%	15.0%	9.8%	8.7%	5.8%	15.2%	12.1%	11.1%	28.6%
														M			MnOP
5	17	5	3	5	4	10	2	4	1	13	2	2	6	4	3	2	2
	5.2%	7.8%	4.3%	4.0%	5.6%	3.9%	8.7%	10.5%	8.3%	5.3%	3.3%	8.7%	7.0%	4.3%	5.2%	4.4%	4.1%
								f									
4 Neutral	18	0	5	9	4	11	3	3	1	16	2	0	7	4	1	4	2
	5.5%	-	7.1%	7.2%	5.6%	4.3%	13.0%	7.9%	8.3%	6.5%	3.3%	-	8.1%	4.3%	1.7%	8.9%	4.1%
			B	B	b											o	
3	6	1	2	0	3	5	0	1	0	4	1	1	1	2	2	1	0
	1.8%	1.6%	2.9%	-	4.2%	1.9%	-	2.6%	-	1.6%	1.6%	4.3%	1.2%	2.2%	3.4%	2.2%	-
			d		D												
2	5	2	1	1	1	2	2	1	0	5	0	0	0	5	0	0	0
	1.5%	3.1%	1.4%	0.8%	1.4%	0.8%	8.7%	2.6%	-	2.0%	-	-	-	5.4%	-	-	-
														Mo			
1 Not Important	3	0	0	2	1	1	1	0	1	2	1	0	1	1	0	0	1
	0.9%	-	-	1.6%	1.4%	0.4%	4.3%	-	8.3%	0.8%	1.6%	-	1.2%	1.1%	-	-	2.0%
Sigma	330	64	70	125	71	257	23	38	12	246	61	23	86	92	58	45	49
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base; ** very small base (under 30) ineligible for sig testing

Table 7-23: Have You Ever Had Bedbugs in Your Home?

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Base: Total Respondents	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
Yes	51	16	8	15	12	26	7	16	2	47	3	1	13	11	7	4	16
	3.3%	5.3%	2.2%	2.7%	3.6%	2.2%	8.8%	7.4%	2.4%	4.1%	1.0%	0.9%	3.4%	2.7%	2.6%	1.6%	6.6%
		Cd					Fi	Fi		Kl							mNOP
No	1501	288	359	534	320	1,147	73	199	82	1,089	304	108	365	401	265	243	227
	96.7%	94.7%	97.8%	97.3%	96.4%	97.8%	91.3%	92.6%	97.6%	95.9%	99.0%	99.1%	96.6%	97.3%	97.4%	98.4%	93.4%
			B	b		GH			gh		J	j	q	Q	Q	Q	
Sigma	1,552	304	367	549	332	1,173	80	215	84	1,136	307	109	378	412	272	247	243
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base

Table 7-24: Did You Treat Them Yourself or Hire a Pest Control Company to Treat Them? Base: Have Had Bedbugs in Home

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Analyzed Respondents	51*	16**	8**	15**	12**	26**	7**	16**	2**	47*	3**	1**	13**	11**	7**	4**	16**
Treated ourselves	42	13	4	13	12	25	6	9	2	39	3	0	9	8	6	4	15
	82.4%	81.3%	50.0%	86.7%	100.0%	96.2%	85.7%	56.3%	100.0%	83.0%	100.0%	-	69.2%	72.7%	85.7%	100.0%	93.8%
Pest Control Company	17	7	4	6	0	5	3	9	0	15	1	1	5	5	1	0	6
	33.3%	43.8%	50.0%	40.0%	-	19.2%	42.9%	56.3%	-	31.9%	33.3%	100.0%	38.5%	45.5%	14.3%	-	37.5%
Sigma	59	20	8	19	12	30	9	18	2	54	4	1	14	13	7	4	21
	115.7%	125.0%	100.0%	126.7%	100.0%	115.4%	128.6%	112.5%	100.0%	114.9%	133.3%	100.0%	107.7%	118.2%	100.0%	100.0%	131.3%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base; ** very small base (under 30) ineligible for sig testing

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Table 7-25: Have You Ever Had a Problem With Bedbugs in a Hotel or Motel You Were Staying At?

	Total	Geo. Region Northeast	Geo. Region Midwest	Geo. Region South	Geo. Region West	Dwelling One Family House	Dwelling Two Family House	Dwelling Three + Family House	Dwelling Mobile Home/ Trailer	Pop. Density Urban SMSA	Pop. Density Suburban SMSA	Pop. Density Rural	Family Income Under $25k	Family Income $25k - <$50k	Family Income $50k - <$75k	Family Income $75k - <$100k	Family Income $100k +
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Base: Total Respondents	1,552	304	367	549	332	1,173	80*	215	84*	1,136	307	109	378	412	272	247	243
Yes	67	16	4	27	20	44	9	11	3	59	6	2	15	18	7	8	19
	4.3%	5.3%	1.1%	4.9%	6.0%	3.8%	11.3%	5.1%	3.6%	5.2%	2.0%	1.8%	4.0%	4.4%	2.6%	3.2%	7.8%
		C		C	C		Fhi			K							MnOP
No	1,485	288	363	522	312	1,129	71	204	81	1,077	301	107	363	394	265	239	224
	95.7%	94.7%	98.9%	95.1%	94.0%	96.2%	88.8%	94.9%	96.4%	94.8%	98.0%	98.2%	96.0%	95.6%	97.4%	96.8%	92.2%
			BDE			G		g	g		J		Q	q	Q	Q	
Sigma	1,552	304	367	549	332	1,173	80	215	84	1,136	307	109	378	412	272	247	243
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Proportions/Means: Columns Tested (5%, 10% risk level) - B/C/D/E - F/G/H/I - J/K/L - M/N/O/P/Q Overlap formulae used. * small base

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APPENDICES

Table A-1: U.S. Sales of Branded Consumer Pesticides and Fertilizers by Marketer, 2011	
Company	**$ Thousand**
The Scotts Miracle-Gro Company	1,444,107
Merial Ltd.	532,000
S.C. Johnson and Son Inc.	415,000
Spectrum Brands	366,000
Bayer AG	288,505
Central Garden & Pet Company	202,900
Hartz Mountain Corporation	150,000
Novartis AG	116,000
Reckitt Benckiser plc	112,000
Lebanon Seaboard Corporation	86,250
Pfizer Inc.	85,000
Woodstream Corporation	73,000
Avon Products, Inc.	64,500
Voluntary Purchasing Groups	44,871
The Andersons Inc.	40,600
PBI/Gordon Corporation	38,000
Motomco Ltd.	32,500
Senoret Chemical Company Inc.	32,000
Lamplight Farms	30,000
Bonide Products Inc.	22,500
Sergeant's Pet Care Products	22,000
Easy Gardener Products	22,000
Control Solutions Inc.	21,300
Green Light Company	21,000
The Espoma Company	19,600
Howard Johnson Enterprises Inc.	18,000
Virbac	12,400
Bengal Products Inc.	10,537

(Continued)

Table A-1: U.S. Sales of Branded Consumer Pesticides and Fertilizers by Marketer, 2011	
Company	**$ Thousand**
Bacon Products	10,015
Zep Inc.	9,702
Summit Chemical Company	9,500
Southern Agricultural Insecticides	9,000
Monterey Lawn and Garden Products, Inc.	8,500
Good Earth Horticulture	8,500
Dial Corporation	7,900
Value Garden Supply	7,800
Pic Corporation	6,765
J.T. Eaton & Company Inc.	4,400
St. Gabriel Organics	3,601
All other	131,499
Total	**4,539,752**

NOTE: Includes U.S. sales of branded products and contract sales for major store brands (Kmart, Wal-Mart, Ace Hardware, and Home Depot). Non-U.S. sales are not included; other sales of products manufactured under contract for a private-label marketer have been deducted from the producer's sales to avoid double-counting; and other related products, such as garden implements, birdseed, and bagged soils, have been subtracted.

Table A-2: U.S. Traceable Media Expenditures for Branded Consumer Pesticides and Fertilizers by Marketer, 2010 and 2011	
Company	**$ Thousand**
S.C. Johnson and Son	67,316
The Scotts Miracle-Gro Company	60,804
Merial Ltd.	55,924
Bayer AG	10,732
Reckitt Benckiser plc	9,927
Lebanon Seaboard Corporation	7,229
Central Garden & Pet Company	3,654
Spectrum Brands	761
Bonide Products Inc.	748
Bengal Products Inc.	303
Summit Chemical Company	126
All other-a	122
Total	**217,646**

a- Includes Pfizer, Espoma, and Voluntary Purchasing Groups.

Table A-3: U.S. Brand Names of Consumer Pesticides and Fertilizers by Marketer, 2011

Company	Brand name
The Andersons Inc.	American Green
	Easy Weeder
	Fortify
Avon Products, Inc.	Skin So Soft
	Bug Guard Plus
Bacon Products Corp	Eagles 7
	My Buddy
Bayer AG	Advantage
	Bayer Advanced
	Natria
	Powerforce
	K-9 Advantix
Bengal Products Inc.	Bengal
	Gold
Bonide Products Inc.	All Seasons
	Bonide
	Bug Beater
	Captain Jack's
	Eight
	Fung-onil
	Go Away
	KleenUp
	MoleMax
	Mosquito Beater
	Repels
	Total Pest Control
	Weed Beater
	Wilt Stop

(Continued)

Table A-3: U.S. Brand Names of Consumer Pesticides and Fertilizers by Marketer, 2011

Company	Brand name
Central Garden & Pet Company	Adams
	Alaska
	Ambush
	Amdro
	Bio Spot
	Centaura
	Cooke
	Corry's
	Extinguish
	Equicare
	Farnam
	Flea Halt!
	FleaTrol
	Flysect
	Flys-Off
	Fogasect
	Four Paws
	GardenTech
	Grant's
	Image
	Just One Bite
	Lilly Miller
	Lure Fly
	Morrison's
	Moss Out!
	Over'N Out
	Pre-Strike
	Repel-X
	Ro-Pel
	Scratchex
	Spot On
	Starbar
	Surestop
	Ultragreen
	Vet-kem
	Wellmark
	Worry Free
	Zodiac

(Continued)

Table A-3: U.S. Brand Names of Consumer Pesticides and Fertilizers by Marketer, 2011

Company	Brand name
Control Solutions	Cyonaura
	Dominion
	Eraser
	GrubZ Out
	Martin's
	Pramitol
	Prefurred
	Surrender
	Viper
Dial Corporation	Combat
	Combat Source Kill
Easy Gardener Products	Easy Gardener
	Jobe's
	Ross
J.T. Eaton & Company Inc.	A-C Formula 90
	Bait Block
	J.T. Eaton
	Kills
	Little Pete
	Mosquito Magic
	Stick-Em
	Trap-Em
The Espoma Company	Bio-Tone
	Earth-Tone
	Espoma
	Gro-Tone
	Espoma Organic
	Quick Solutions
	Tone

(Continued)

Table A-3: U.S. Brand Names of Consumer Pesticides and Fertilizers by Marketer, 2011

Company	Brand name
Green Light Company	Amaze
	Bioganic
	Com-Pleet
	Conquest
	Green Light
	Rose Defense
	Wipe-Out
	Yard Safe
Hartz Mountain Corporation	Hartz
	UltraGuard
	UltraGuard Plus
Howard Johnson Enterprises Inc.	All-Season
	Howard Johnson
	Nursery Pro
	ZOOM!
S.C. Johnson and Son Inc.	Off! Active
	Off! Clip-On
	Off! Deep Woods
	Off! Deep Woods Sportsmen
	Off! Familycare
	Off! Powerpad
	Raid
Lamplight Farms	Bitefighter
	Lamplight
	Tiki
Lebanon Seaboard Corporation	Greenview
	Lebanon
	Preen
Merial Ltd.	Frontline
	Frontline Top Spot
	Frontline Plus

(Continued)

Table A-3: U.S. Brand Names of Consumer Pesticides and Fertilizers by Marketer, 2011

Company	Brand name
Monterey Lawn and Garden Products, Inc.	All Natural
	Crab-E-Rad
	Dr. Iron
	Hasta La Vista
	Monterey
	Remuda
	Saf-T-Side
	Sluggo
	Take Down
	Weed Impede
Motomco Ltd.	Agrid3
	Eraze
	Hawk
	Jaguar
	Motomco
	Rampage
	Tomcat
Novartis AG	Capstar
	Prac-tic
	Program
	Sentinel
PBI/Gordon Corp.	Brush-No-More
	Bug-No-More
	Garden Guard
	Gordon's
	Grub-No-More
	Jump Shot
	Pronto
	SpeedZone
	Trimec
Pfizer Inc.	Revolution
Pic Corporation	PIC

(Continued)

Table A-3: U.S. Brand Names of Consumer Pesticides and Fertilizers by Marketer, 2011	
Company	**Brand name**
Reckitt Benckiser plc	d-CON
	Mouse-Prufe II
The Scotts Miracle-Gro Company Inc.	Ant-B-Gon
	Bonus S
	Brush-B-Gon
	Bug-B-Gon MAX
	Bug-Geta
	Elementals
	Grass-B-Gon
	GroundClear
	GrubEx
	Halts
	Home Defense
	Home Defense MAX
	Kill & Contain
	Lawn Pro
	Liqua Feed
	Miracle-Gro
	Nursery Select Miracid
	Organic Choice
	Orthenex
	Ortho
	Osmocote
	PatchMaster
	Pour & Feed
	Pump 'N Go
	Rose Pride
	Roundup-a
	Scotts
	Shake 'n Feed
	Smart Release
	Super Turf Builder
	Turf Builder
	Volck
	Weed-B-Gon

(Continued)

Table A-3: U.S. Brand Names of Consumer Pesticides and Fertilizers by Marketer, 2011	
Company	**Brand name**
Sergeant's Pet Care Products	Bansect
	Dual Action
	Evolve
	Green Natural
	Nature's Guardian
	Pronyl
	Sentry HC
	Sentry Pro
	Sentry Pro XFC
	Sergeant's
	Sergeant's Gold
	Sergeant's Silver
	Skip Flea
Senoret Chemical Company Inc.	Sweeney's
	Terro
Southern Agricultural Insecticides Inc.	Southern Ag
Spectrum Brands	Advanced
	African Violet Plus
	All Family
	Ant Shield
	Backwoods
	Backyard
	Black Flag
	Bug Stop
	Cactus Plus
	CitroGuard
	Cutter
	Garden Safe
	Hot Shot
	Immunox
	MaxAttrax
	No-Pest
	Once & Done!
	Repel
	Schultz

(Continued)

Table A-3: U.S. Brand Names of Consumer Pesticides and Fertilizers by Marketer, 2011	
Company	**Brand name**
Spectrum Brands	Skinsations
	Spectracide
	Starter Plus
	TAT
	Triazicide
	Terminate
	Weed Stop
St. Gabriel Organics	AntEater
	BugShooter
	Burnout
	Holy Moley No More Moles!
	Milky Spore
	Moss Killer
	St. Gabriel Organics
	Turf Medic
Summit Chemical Company	Mistocide
	Mosquito Bits
	Mosquito Dunks
	Year-Round
Value Garden Supply	Dexol
	Gardener's Choice
Virbac	Ecto-Soothe
	Pet-Guard
	Preventic
Voluntary Purchasing Groups	Ferti-Lome
	Hi-Yield
	Natural Guard
Woodstream Corporation	Concern
	Critter Ridder
	Deer Off
	Dr. T's
	Mosquito Magnet
	Poison-Free
	Ringer
	Safer
	Victor
	Victor Fast-Kill
	Victor Multi-Kill

(Continued)

Table A-3: U.S. Brand Names of Consumer Pesticides and Fertilizers by Marketer, 2011

Company	Brand name
Zep Inc.	AntMax
	BugMax
	Flea Drops
	MouseMax
	Over Nite
	RatMax
	Scorcher
	Weed Shot

a- Sold through a licensing agreement with Monsanto.

Table A-4: U.S. Marketers of Consumer Pesticides and Fertilizers by Brand, 2011

Brand	Company
A-C Formula 90	J.T. Eaton & Company Inc.
Adams	Central Garden & Pet Company
Advanced	Spectrum Brands
Advantage	Bayer AG
African Violet Plus	Spectrum Brands
Agrid3	Motomco Ltd.
Alaska	Central Garden & Pet Company
All Family	Spectrum Brands
All Natural	Monterey Lawn and Garden Products, Inc.
All Seasons	Bonide Products Inc.
All-Season	Howard Johnson Enterprises Inc.
Amaze	Green Light Company
Ambush	Central Garden & Pet Company
Amdro	Central Garden & Pet Company
American Green	The Andersons Inc.
Ant Shield	Spectrum Brands
Ant-B-Gon	The Scotts Miracle-Gro Company
AntEater	St. Gabriel Organics
AntMax	Zep Inc.
Backwoods	Spectrum Brands

(Continued)

Table A-4: U.S. Marketers of Consumer Pesticides and Fertilizers by Brand, 2011	
Brand	**Company**
Backyard	Spectrum Brands
Bait Block	J.T. Eaton & Company Inc.
Bansect	Sergeant's Pet Care Products
Bayer Advanced	Bayer AG
Bengal	Bengal Products Inc.
Bio Spot	Central Garden & Pet Company
Bioganic	Green Light Company
Bio-Tone	The Espoma Company
Bitefighter	Lamplight Farms
Black Flag	Spectrum Brands
Bonide	Bonide Products Inc.
Bonus S	The Scotts Miracle-Gro Company
Brush-B-Gon	The Scotts Miracle-Gro Company
Brush-No-More	PBI/Gordon Corp.
Bug Beater	Bonide Products Inc.
Bug Guard Plus	Avon Products, Inc.
Bug Stop	Spectrum Brands
Bug-B-Gon MAX	The Scotts Miracle-Gro Company
Bug-Geta	The Scotts Miracle-Gro Company
BugMax	Zep Inc.
Bug-No-More	PBI/Gordon Corp.
BugShooter	St. Gabriel Organics
Burnout	St. Gabriel Organics
Cactus Plus	Spectrum Brands
Capstar	Novartis AG
Captain Jack's	Bonide Products Inc.
Centaura	Central Garden & Pet Company
CitroGuard	Spectrum Brands
Combat	Dial Corporation
Combat Source Kill	Dial Corporation
Com-Pleet	Green Light Company
Concern	Woodstream Corporation
Conquest	Green Light Company
Cooke	Central Garden & Pet Company

(Continued)

Table A-4: U.S. Marketers of Consumer Pesticides and Fertilizers by Brand, 2011	
Brand	**Company**
Corry's	Central Garden & Pet Company
Crab-E-Rad	Monterey Lawn and Garden Products, Inc.
Critter Ridder	Woodstream Corporation
Cutter	Spectrum Brands
Cyonara	Control Solutions Inc.
d-CON	Reckitt Benckiser plc
Deer Off	Woodstream Corporation
Dexol	Value Garden Supply
Dominion	Control Solutions Inc.
Dr. Iron	Monterey Lawn and Garden Products, Inc.
Dr. T's	Woodstream Corporation
Dual Action	Sergeant's Pet Care Products
Eagles 7	Bacon Products Corporation
Earth-Tone	The Espoma Company
Easy Gardener	Easy Gardener Products
Easy Weeder	The Andersons Inc.
Ecto-Soothe	Virbac
Eight	Bonide Products Inc.
Elementals	The Scotts Miracle-Gro Company
Eraser	Control Solutions Inc.
Eraze	Motomco Ltd.
Espoma	The Espoma Company
Espoma Organic	The Espoma Company
Evolve	Sergeant's Pet Care Products
Extinguish	Central Garden & Pet Company
Farnam	Central Garden & Pet Company
Ferti-Lome	Voluntary Purchasing Groups
Flea Drops	Zep Inc.
Flea Halt!	Central Garden & Pet Company
FleaTrol	Central Garden & Pet Company
Flysect	Central Garden & Pet Company
Flys-Off	Central Garden & Pet Company
Fogasect	Central Garden & Pet Company
Fortify	The Andersons Inc.

(Continued)

Table A-4: U.S. Marketers of Consumer Pesticides and Fertilizers by Brand, 2011	
Brand	**Company**
Four Paws	Central Garden & Pet Company
Frontline	Merial Ltd.
Frontline Plus	Merial Ltd.
Frontline Top Spot	Merial Ltd.
Fung-onil	Bonide Products Inc.
Garden Guard	PBI/Gordon Corp.
Garden Safe	Spectrum Brands
Gardener's Choice	Value Garden Supply
GardenTech	Central Garden & Pet Company
Go Away	Bonide Products Inc.
Gold	Bengal Products Inc.
Gordon's	PBI/Gordon Corp.
Grant's	Central Garden & Pet Company
Grass-B-Gon	The Scotts Miracle-Gro Company
Green Light	Green Light Company
Green Natural	Sergeant's Pet Care Products
Greenview	Lebanon Seaboard Corporation
Gro-Tone	The Espoma Company
GroundClear	The Scotts Miracle-Gro Company
GrubEx	The Scotts Miracle-Gro Company
Grub-No-More	PBI/Gordon Corp.
GrubZ Out	Control Solutions Inc.
Halts	The Scotts Miracle-Gro Company
Hartz	Hartz Mountain Corporation
Hasta La Vista	Monterey Lawn and Garden Products, Inc.
Hawk	Motomco Ltd.
Hi-Yield	Voluntary Purchasing Groups
Holy Moley No More Moles!	St. Gabriel Organics
Home Defense	The Scotts Miracle-Gro Company
Home Defense MAX	The Scotts Miracle-Gro Company
Hot Shot	Spectrum Brands
Howard Johnson	Howard Johnson Enterprises Inc.
Image	Central Garden & Pet Company
Immunox	Spectrum Brands

(Continued)

Table A-4: U.S. Marketers of Consumer Pesticides and Fertilizers by Brand, 2011	
Brand	**Company**
J.T. Eaton	J.T. Eaton & Company Inc.
Jaguar	Motomco Ltd.
Jobe's	Easy Gardener Products
Jump Shot	PBI/Gordon Corp.
Just One Bite	Central Garden & Pet Company
K-9 Advantix	Bayer AG
Kill & Contain	The Scotts Miracle-Gro Company
Kills	J.T. Eaton & Company Inc.
Kleenup	Bonide Products Inc.
Lamplight	Lamplight Farms
Lawn Pro	The Scotts Miracle-Gro Company
Lebanon	Lebanon Seaboard Corporation
Lilly Miller	Central Garden & Pet Company
Liqua Feed	The Scotts Miracle-Gro Company
Little Pete	J.T. Eaton & Company Inc.
Lure Fly	Central Garden & Pet Company
Martin's	Control Solutions Inc.
MaxAttrax	Spectrum Brands
Milky Spore	St. Gabriel Organics
Miracle-Gro	The Scotts Miracle-Gro Company
Mistocide	Summit Chemical Company
MoleMax	Bonide Products Inc.
Monterey	Monterey Lawn and Garden Products, Inc.
Morrison's	Central Garden & Pet Company
Mosquito Beater	Bonide Products Inc.
Mosquito Bits	Summit Chemical Company
Mosquito Dunks	Summit Chemical Company
Mosquito Magic	J.T. Eaton & Company Inc.
Mosquito Magnet	Woodstream Corporation
Moss Killer	St. Gabriel Organics
Moss Out!	Central Garden & Pet Company
Motomco	Motomco Ltd.
Mouse-Prufe II	Reckitt Benckiser plc
MouseMax	Zep Inc.

(Continued)

Table A-4: U.S. Marketers of Consumer Pesticides and Fertilizers by Brand, 2011	
Brand	**Company**
My Buddy	Bacon Products Corporation
Natria	Bayer AG
Natural Guard	Voluntary Purchasing Groups
Nature's Guardian	Sergeant's Pet Care Products
No-Pest	Spectrum Brands
Nursery Pro	Howard Johnson Enterprises Inc.
Nursery Select Miracid	The Scotts Miracle-Gro Company
Off! Active	S.C. Johnson and Son Inc.
Off! Clip-On	S.C. Johnson and Son Inc.
Off! Deep Woods	S.C. Johnson and Son Inc.
Off! Deep Woods Sportsmen	S.C. Johnson and Son Inc.
Off! Familycare	S.C. Johnson and Son Inc.
Off! Powerpad	S.C. Johnson and Son Inc.
Once & Done!	Spectrum Brands
Organic Choice	The Scotts Miracle-Gro Company
Orthenex	The Scotts Miracle-Gro Company
Ortho	The Scotts Miracle-Gro Company
Osmocote	The Scotts Miracle-Gro Company
Over Nite	Zep Inc.
Over'N Out	Central Garden & Pet Company
PatchMaster	The Scotts Miracle-Gro Company
Pet-Guard	Virbac
PIC	Pic Corporation
Poison-Free	Woodstream Corporation
Pour & Feed	The Scotts Miracle-Gro Company
Powerforce	Bayer AG
Prac-tic	Novartis AG
Pramitol	Control Solutions Inc.
Preen	Lebanon Seaboard Corporation
Prefurred	Control Solutions Inc.
Pre-Strike	Central Garden & Pet Company
Preventic	Virbac
Program	Novartis AG
Pronto	PBI/Gordon Corp.

(Continued)

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Table A-4: U.S. Marketers of Consumer Pesticides and Fertilizers by Brand, 2011

Brand	Company
Pronyl	Sergeant's Pet Care Products
Pump 'N Go	The Scotts Miracle-Gro Company
Quick Solutions	The Espoma Company
Raid	S.C. Johnson and Son Inc.
Rampage	Motomco Ltd.
RatMax	Zep Inc.
Remuda	Monterey Lawn and Garden Products, Inc.
Repel	Spectrum Brands
Repel-X	Central Garden & Pet Company
Repels	Bonide Products Inc.
Revolution	Pfizer Inc.
Ringer	Woodstream Corporation
Ro-Pel	Central Garden & Pet Company
Rose Defense	Green Light Company
Rose Pride	The Scotts Miracle-Gro Company
Ross	Easy Gardener Products
Roundup-a	The Scotts Miracle-Gro Company
Safer	Woodstream Corporation
Saf-T-Side	Monterey Lawn and Garden Products, Inc.
Schultz	Spectrum Brands
Scorcher	Zep Inc.
Scotts	The Scotts Miracle-Gro Company
Scratchex	Central Garden & Pet Company
Sentinel	Novartis AG
Sentry HC	Sergeant's Pet Care Products
Sentry Pro	Sergeant's Pet Care Products
Sentry Pro XFC	Sergeant's Pet Care Products
Sergeant's	Sergeant's Pet Care Products
Sergeant's Gold	Sergeant's Pet Care Products
Sergeant's Silver	Sergeant's Pet Care Products
Shake 'n Feed	The Scotts Miracle-Gro Company
Skin So Soft	Avon Products, Inc.
Skinsations	Spectrum Brands
Skip Flea	Sergeant's Pet Care Products

(Continued)

Table A-4: U.S. Marketers of Consumer Pesticides and Fertilizers by Brand, 2011

Brand	Company
Sluggo	Monterey Lawn and Garden Products, Inc.
Smart Release	The Scotts Miracle-Gro Company
Southern Ag	Southern Agricultural Insecticides Inc.
Spectracide	Spectrum Brands
SpeedZone	PBI/Gordon Corp.
Spot On	Central Garden & Pet Company
St. Gabriel Organics	St. Gabriel Organics
Starbar	Central Garden & Pet Company
Starter Plus	Spectrum Brands
Stick-em	J. T. Eaton & Company Inc.
Super turf Builder	The Scotts Miracle-Gro Company
Surestop	Central Garden & Pet Company
Surrender	Control Solutions Inc.
Sweeney's	Senoret Chemical Company Inc.
Take Down	Monterey Lawn and Garden Products, Inc.
TAT	Spectrum Brands
Terminate	Spectrum Brands
Terro	Senoret Chemical Company Inc.
Tiki	Lamplight Farms
Tomcat	Motomco Ltd.
Tone	The Espoma Company
Total Pest Control	Bonide Products Inc.
Trap-em	J.T. Eaton & Company Inc.
Triazicide	Spectrum Brands
Trimec	PBI/Gordon Corp.
Turf Builder	The Scotts Miracle-Gro Company
Turf Medic	St. Gabriel Organics
Ultragreen	Central Garden & Pet Company
UltraGuard	Hartz Mountain Corporation
UltraGuard Plus	Hartz Mountain Corporation
Vet-Kem	Central Garden & Pet Company
Victor	Woodstream Corporation
Victor Fast-Kill	Woodstream Corporation
Victor Multi-Kill	Woodstream Corporation

(Continued)

Table A-4: U.S. Marketers of Consumer Pesticides and Fertilizers by Brand, 2011	
Brand	**Company**
Viper	Control Solutions Inc.
Volck	The Scotts Miracle-Gro Company
Weed Beater	Bonide Products Inc.
Weed Impede	Monterey Lawn and Garden Products, Inc.
Weed Shot	Zep Inc.
Weed Stop	Spectrum Brands
Weed-B-Gon	The Scotts Miracle-Gro Company
Wellmark	Central Garden & Pet Company
Wilt Stop	Bonide Products Inc.
Wipe-Out	Green Light Company
Worry Free	Central Garden & Pet Company
Yard Safe	Green Light Company
Year-Round	Summit Chemical Company
Zodiac	Central Garden & Pet Company
ZOOM!	Howard Johnson Enterprises Inc.

a- Sold through a licensing agreement with Monsanto.

Figure A-1: Geographic Regions for Consumer Profiles

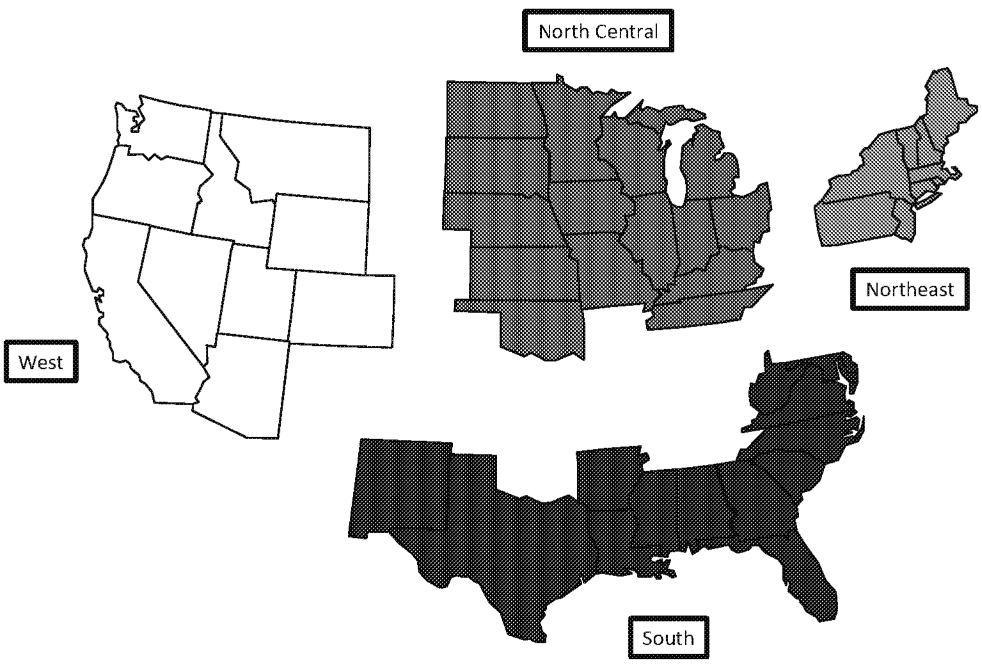

Table A-5: Summary of Supplier Sales by Market Segment, 2011

$ Thousand

Company	Fertilizers					Herbicides					Insecticides					
	Lawn	Garden	House-plant	Total	Fungi-cides	Lawn	Garden	NS	Total	Rodent-icides	House-hold-a	Pet	Out-door	Repell-ents	Total	Grand total-b
The Andersons	30,450	4,060	-	34,510	-	2,842	1,218	-	4,060	-	-	-	2,030	-	2,030	40,600
Avon Products	-	-	-	-	-	-	-	-	-	-	-	-	-	64,500	64,500	64,500
Bacon Products	-	-	-	-	-	-	-	-	-	632	7,592	-	-	1,791	9,383	10,015
Bayer	-	-	-	-	2,367	14,107	-	-	14,107	-	10,958	222,993	38,079	-	272,030	288,504
Bengal Products	-	-	-	-	-	-	-	-	-	-	3,161	3,161	4,214	-	10,537	10,537
Bonide Products	-	1,125	-	1,125	2,250	2,250	250	2,000	4,500	2,250	1,125	-	10,125	1,125	12,375	22,500
Central Garden & Pet	28,550	2,400	200	31,150	450	10,900	3,150	8,300	22,350	6,600	18,850	56,250	64,000	3,250	142,350	202,900
Control Solutions	-	-	-	-	-	-	-	6,000	6,000	-	3,400	4,400	7,500	-	15,300	21,300
Dial Corp.	-	-	-	-	-	-	-	-	-	-	7,900	-	-	-	7,900	7,900
Easy Gardner Products	-	20,000	2,000	22,000	-	-	-	-	-	-	-	-	-	-	-	22,000
The Espoma Company	7,840	9,880	-	17,720	-	-	-	-	-	-	-	-	1,880	-	1,880	19,600
Good Earth Horticulture	-	8,000	500	8,500	-	-	-	-	-	-	-	-	-	-	-	8,500
Green Light Company	-	700	-	700	1,700	2,600	700	1,600	4,900	-	1,900	-	11,800	-	13,700	21,000
Hartz Mountain	-	-	-	-	-	-	-	-	-	-	-	150,000	-	-	150,000	150,000

(Continued)

Table A-5: Summary of Supplier Sales by Market Segment, 2011

$ Thousand

Company	Fertilizers					Herbicides					Insecticides					
	Lawn	Garden	House-plant	Total	Fungi-cides	Lawn	Garden	NS	Total	Rodent-icides	House-hold-a	Pet	Out-door	Repell-ents	Total	Grand total-b
Howard Johnson	12,000	5,000	-	17,000	-	-	-	-	-	-	-	-	1,000	-	1,000	18,000
J.T. Eaton & Company	-	-	-	-	-	-	-	-	-	3,080	880	-	-	440	1,320	4,400
Lamplight Farms	-	-	-	-	-	-	-	-	-	-	-	-	-	30,000	30,000	30,000
Lebanon Seaboard	18,113	25,875	-	43,988	-	10,100	30,050	2,112	42,262	-	-	-	-	-	-	86,250
Merial Ltd.	-	-	-	-	-	-	-	-	-	-	-	532,000	-	-	532,000	532,000
Monterey Lawn & Garden	2,600	-	-	2,600	-	3,300	-	-	3,300	-	-	-	2,600	0	2,600	8,500
Motomco	-	-	-	-	-	-	-	-	-	32,500	-	-	-	-	-	32,500
Novartis	-	-	-	-	-	-	-	-	-	-	-	116,000	-	-	116,000	116,000
PBI/Gordon	-	-	-	-	4,900	17,100	4,900	2,700	24,700	-	-	-	8,400	-	8,400	38,000
Pfizer	-	-	-	-	-	-	-	-	-	-	-	85,000	-	-	85,000	85,000
Pic Corp.	-	-	-	-	-	-	-	-	-	-	4,515	-	-	2,250	6,765	6,765
Reckitt Benckiser	-	-	-	-	-	-	-	-	-	112,000	-	-	-	-	-	112,000
S.C. Johnson	-	-	-	-	-	-	-	-	-	-	200,000	-	25,000	190,000	415,000	415,000

(Continued)

Table A-5: Summary of Supplier Sales by Market Segment, 2011

$ Thousand

Company	Fertilizers					Herbicides					Insecticides					
	Lawn	Garden	House-plant	Total	Fungi-cides	Lawn	Garden	NS	Total	Rodent-icides	House-hold-a	Pet	Out-door	Repell-ents	Total	Grand total-b
Scotts Miracle-Gro	624,574	221,398	53,602	899,574	23,305	69,915	20,305	163,000	253,220	-	58,263	-	209,745	-	268,008	1,444,107
Senoret Chemical	-	-	-	-	-	-	-	-	-	6,500	13,800	-	8,500	3,200	25,500	32,000
Sergeant's Pet Care	-	-	-	-	-	-	-	-	-	-	-	22,000	-	-	22,000	22,000
Southern Agricultural	2,100	-	-	2,100	2,000	1,200	1,000	-	2,200	-	-	-	2,700	-	2,700	9,000
Spectrum Brands	7,080	4,540	2,540	14,160	7,080	17,700	7,080	28,320	53,100	-	120,000	2,820	136,980	31,860	291,660	366,000
St. Gabriel Organics	-	-	-	-	-	-	188	375	563	-	-	-	2,513	525	3,038	3,601
Summit Chemical	5,000	-	-	5,000	-	-	-	-	-	-	-	-	4,500	-	4,500	9,500
Value Garden Supply	-	-	-	-	400	300	400	1,400	2,100	1,100	1,700	-	2,500	-	4,200	7,800
Virbac	-	-	-	-	-	-	-	-	-	-	-	12,400	-	-	12,400	12,400
Voluntary Purchasing Groups	24,764	4,673	-	29,437	-	4,246	-	4,246	8,492	-	-	-	6,942	-	6,942	44,871
Woodstream	16,000	6,000	-	22,000	11,000	-	-	-	-	10,000	16,000	-	7,000	7,000	30,000	73,000
Zep, Inc.	-	-	-	-	-	-	-	485	485	-	4,366	485	4,366	-	9,217	9,702
Other-c	50,000	8,000	4,000	62,000	1,000	4,000	500	2,000	6,500	-	20,000	10,000	20,000	12,000	62,000	131,500
Total	**829,071**	**321,651**	**62,842**	**1,213,564**	**56,452**	**160,560**	**69,741**	**222,538**	**452,839**	**174,662**	**494,410**	**1,217,509**	**582,374**	**347,941**	**2,642,234**	**4,539,752**

a- Includes houseplant insecticides.
b- Totals shown may differ from company totals in individual profiles because "other" related sales, given in the profiles to show a more complete picture of the consumer business, were removed.
c- Estimate of sales of small marketers that were not profiled as part of the study.

Kline

COMMENT SHEET FOR CONSUMER MARKETS FOR PESTICIDES AND FERTILIZERS

What is your overall impression of this study?

____

____

Are there any other types of information that you feel should be included in future issues of this study?

____

____

Do you have any suggestions concerning the format of this study?

____

____

Any additional comments:

____

____

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THANK YOU FOR YOUR COMMENTS AND SUGGESTIONS

PLEASE RETURN THIS FORM TO:

KLINE & COMPANY, INC.
Attn: Dennis Fugate
Industry Manager, Specialty Pesticides Practice
Fax: 973-435-6291